

INFANT FEEDING *and* MANAGEMENT



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Infant Feeding

*By a Succession of Foods
adapted to the Growing Digestive
Powers of the Child*

— With Notes on —
General Management



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WHO SAID

Allenburys

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Preface.

For a perusal of this Infant Feeding Booklet a glance at the general index on page 3 will enable the reader to see the arrangement of the pages of the book. Numbering of the paragraphs has been adopted to facilitate reference.

In the correspondence we have received over a period of many years, both from mothers and from nurses, many questions have been asked and little difficulties brought to our notice: in the booklet we have endeavoured to embody all the information necessary to answer them. To save time reference should be made to the detailed index at the end.

If much of what is written in this book seems to the reader to be obvious, and therefore superfluous, it should be remembered that the booklet is intended for universal use, and that in many quarters there is still much room for improvement in the knowledge of infant welfare.

We trust that this revised edition will contribute to the progressive reduction of the rate of infant mortality which has been a feature of the vital statistics of recent years.

Allen & Stanburys Ltd



Infant Feeding

By a Succession of Foods adapted to the
Growing Digestive Powers of the Child,

— With Notes on —
General Management.

1.  T is acknowledged by everyone that no form of food can be so good as the normal milk of a healthy mother. In this the constituents are present in such proportions that the infant digestion is properly exercised without being overtaxed and impaired. If, for any reason, it is impossible to supply to the infant its natural food—the milk of a healthy mother—some other food must be found, and it is clear that the more nearly such a food resembles breast milk the more suitable it will prove. Therefore, before deciding on a food we must compare it with the mother's milk. If we first investigate the composition and general characteristics of the milk of a healthy mother, we find that (1) it is practically neutral in reaction, and not acid like cow's milk, (2) it is sterile, so that it contains no harmful germs, and cannot convey

*Human
Milk*

infective diseases to the baby's system, (3) its approximate composition is, in 100 parts :

Water	87.5 parts
Fat (cream)	3.2 to 3.5 parts
Casein (cheesy material)	1.0 part
Albumen	1.2 parts
Milk Sugar	6.0 to 7.0 parts
Mineral Matters	0.3 part

2. This nourishment which the infant draws from the mother must be taken as our standard if it becomes necessary to adopt other feeding. Keeping these facts in mind, let us now examine the methods of feeding in common

**Commonest
Method
of
Feeding**

use. Where artificial feeding is adopted, one generally finds that the young infant is fed upon cow's milk, water and sugar in varying proportions. These are often mixed in an inaccurate or haphazard manner, so that the child hardly ever receives two feeds alike.

3. Mothers and nurses are generally agreed that the majority of young infants do not thrive on undiluted cow's milk. They say it is "too strong," and forms large lumpy curds in the

**Human Milk
and Cow's Milk
compared**

stomach which the child cannot easily digest. But this is not a complete and proper explanation. Let us make a comparison between cow's milk and the milk of a healthy mother, which we have just considered.

1. Human milk is practically neutral. Cow's milk is acid.
2. Human milk is free from germs. Cow's milk, especially as sold in towns, generally contains far too great a number of germs. This is emphasised by the opinion of the foremost medical specialists of the day in a letter communicated to the medical press, in which they state that

"Milk is peculiarly susceptible and liable to contamination, not only while it is in the hands of the producer and retailer, but also as soon as it reaches the consumer. For want of due care in handling, milk is frequently, as is well known, a potent factor in the dissemination of a number of serious diseases, and has great influence on infant mortality."

3. The composition differs as indicated by the following figures for 100 parts of each :

		COW'S MILK.	HUMAN MILK.
Water		87.2 parts	87.5 parts
Fat (cream)	3.3 to 3.6 parts	3.2 to 3.5 parts	
Casein		3.0 parts	1.0 part
Albumen		0.5 part	1.2 parts
Milk Sugar		4.5 to 5.0 parts	6.0 to 7.0 parts
Mineral Matters		0.7 part	0.3 part

4. On comparing the percentage compositions of human milk and of cow's milk we see at once that there are considerable divergencies, and that a mixture of cow's milk and water can never be a physiologically correct food for an infant.

***Disadvantages
of Cow's Milk
and Water***

The most important difference is in the quantity of casein or curd, of which there is often more than three times as much in cow's milk as in human milk ; this is the main reason why cow's milk is "too strong" for the infant digestion. Again, in cow's milk diluted with water in equal parts (the strength usually given to a young infant) it will be seen that the amount of fat is greatly diminished—a somewhat drastic deviation from the proper standard. When cream is added to diluted milk the proportion of fat may be made correct, but the marked deficiency of albumen and milk sugar is still further exaggerated.

5. For a long time these faults have been widely recognised, and experts have shown how they may be remedied by "modifying" or "humanising" the cow's milk. In this process the

***"Modified" or
"Humanised"
Milk***

excess of casein is removed from the cow's milk, and the deficiency in fat is made good by the addition of cream. Different methods are employed and various forms of apparatus are sold, but the whole process is too complicated and technical to be carried out accurately in the average home where time is often short. Moreover, even if cow's milk be properly modified in composition, and the

acidity of the milk neutralised, there still remains the *great danger* that fresh milk may not be free from harmful germs. To minimise this danger the milk must be pasteurised, or sterilised, in a suitable vessel, and this again is difficult. Even if the milk be boiled it may still contain sour, acid, or irritating products due to decomposition, if the milk is not fresh. It is, therefore, obvious that the difficulties of the mother or nurse who has to feed an infant on cow's milk are great, and that the danger to the child is often serious. To meet the pressing need for a pure germ-free milk diet of correct composition, about 40 years ago now ALLEN & HANBURY'S introduced their Milk Foods, the uses and properties of which will be discussed later on (*see paragraphs 11 to 17*).

6. It is a matter of common knowledge that the germs of various diseases are frequently introduced into the human system by cow's milk. Long ago doctors suspected

***Diseases
conveyed by
Cow's Milk***

that such was the case, and later experience has amply confirmed the correctness of their views. So urgent was the danger of infection from cow's milk, that eminent medical specialists of the day published a strong warning on the subject. An extract from this letter has already been quoted (*see paragraph 3*). Many examples of the risks run in feeding infants with cow's milk could be given. A few may here be referred to.

Many years ago the Royal Commission on TUBERCULOSIS proved conclusively that the milk of a cow with a tuberculous udder contained the germ of that disease. Tuberculous glands in the neck and other lesions due to infection with the bovine type of tubercle bacillus are far more prevalent among children in this country than they ought to be to-day, and the subject is receiving the earnest attention both of the health authorities and of the leading men in the milk trade.

EPIDEMICS of TYPHOID FEVER have repeatedly occurred through the germ of this disease being introduced into the milk, either in the process of washing the cans, or by dilution of the milk, with infected water. DIPHTHERIA and SCARLET FEVER, likewise, are often conveyed by milk. In one case it was found that an epidemic of Scarlet Fever originated by the

milkman, himself suffering from the disease, infecting the milk he carried around. There is also a disease of the cow which, in all probability, produces Scarlet Fever in the human being, as was evidenced in the epidemic of Scarlet Fever which occurred several years ago at Hendon—(HENDON DISEASE). Thus while cow's milk is a great staple food and a valuable source of nutriment, it is also liable to convey disease, because germs grow and multiply very rapidly in it; if even one germ finds its way into milk (which has not been properly cooled after the milking and kept at a low temperature), it multiplies itself many thousands of times within twenty-four hours.

7. It is often impossible to obtain fresh cow's milk and then mothers frequently use condensed milk. There are three kinds usually obtainable, *viz.*: (1) full cream sweetened; (2) full cream unsweetened; and (3) skimmed. Like cow's milk, however, none of these as regards their composition can be regarded as entirely suitable as a diet for young infants under six months of age. Above this age the two former can be used as part of the infant dietary; the skimmed, however, should not be given to normal healthy infants. The general reasons why condensed milk is unsuitable for very young infants are, that when mixed ready for use, it is usually deficient in fat, and contains an excess of casein. Sweetened condensed milk usually contains cane or beet sugar, which is more prone to fermentation in the child's stomach than the natural sugar of milk.

8. Such troubles are frequently aggravated by the addition to the diet of some kind of farinaceous or starchy food. Until the fifth or sixth month babies do not readily digest starchy food, so that such additions make matters much worse for the young infant. The difficulty can be overcome by using the "**Allenburys**" **Milk Foods No. 1** and **No. 2**, which contain no starch, are free from harmful germs, and closely resemble human milk in

composition. Being packed in hermetically sealed tins, compact and portable, they are most convenient at all times, but especially when travelling. There are many kinds of farinaceous foods and biscuits. *None* of these, either alone or combined with condensed milk, is suitable for an infant at any rate until the fifth or sixth month, as they all contain starchy food, which the young baby cannot readily digest. Farinaceous foods are sometimes given now rather earlier in life than formerly.

The Importance of a Proper Dietary.

9. Physicians on the staffs of hospitals for children clearly realise and strongly emphasise the dangers of an impure milk supply. The correctness of this view is at once seen on examining the causes of mortality in young infants. For years the

Infantile Mortality

Registrar-General's tables have shown that a large proportion of the mortality among infants under one year old is due to DIARRHŒA and kindred disorders. Closer inquiry reveals that this death rate from Diarrhœa is higher (1) in towns than in the country, (2) in hot weather than in cold, (3) in industrial districts (where the women go to the factories, and hence cannot nurse their children), than in agricultural districts.

10. Of course there are other factors to consider, such as general neglect, insanitary surroundings, and dirty bottles and utensils ; but the most important factor of this mortality in the case of children under one year is *improper feeding*.

Improper Feeding

This alone is sufficient to account for the enormous mortality from Diarrhœa when we consider the dangers of bowel infection incurred through the consumption of unsterilised cow's milk, the disordered state of the bowels produced by the indigestible constituents of such milk, and the still common practice of using farinaceous foods for babies before the fifth or sixth month. Cow's milk, as commonly supplied in towns, especially in the summer time, generally swarms with bacteria,

and is a fruitful source of Diarrhœa and various digestive troubles. On the other hand, it has been shown that on some occasions of widespread calamity, involving many homes in destitution, the actual mortality of infants under one year has been less than usual, owing to the fact that mothers, not being able to obtain cow's milk, were compelled of necessity to suckle their own infants. What do all these facts indicate? They emphasise most strongly that if a young infant cannot be fed naturally by the mother it is absolutely necessary to substitute a diet free from harmful germs, and, as far as possible, similar both in composition and physical character to human milk. Such a diet is provided by the "**Allenburys**" **Milk Foods**.

11. The marked differences in composition of cow's and human milk have already been shown (*see paragraph 3*), and the

Summary difficulties of preparing a suitable food for the hand-reared infant from cow's milk have been mentioned and will be appreciated. Mere dilution of cow's milk with water, as usually carried out, greatly lessens the already deficient amount of fat, albumen and milk sugar, the right proportions of which are essential to healthy growth and development. The following comparison of the different milks will be of interest :—

1—Reaction :

Human Milk	Practically neutral
"Allenburys" Milk Foods	Practically neutral
Cow's Milk	Practically neutral when freshly drawn, but rapidly becoming acid

2—Presence of Germs :

Human Milk	Free from harmful germs
"Allenburys" Milk Foods	Free from harmful germs
Cow's Milk	Cow's milk as ordinarily supplied is swarming with germs

3—Composition :

The "**Allenburys**" **No. 1 and No. 2 Milk Foods**, when prepared according to the directions with boiling water, closely resemble human milk.

12. In referring to the important subject of the right method of Infant Feeding, *The Lancet* remarks: "The satisfactory solution of the problem can only be attempted when the difference in the amounts of constituents in cow's and human milk are first taken into account, and then by adopting a process which it is calculated will remove these differences, or, at any rate reduce them to insignificant proportions. Not only does it seem to us that this is exactly what Messrs. ALLEN & HANBURYs have succeeded in doing, but what makes the product still more valuable and convenient is that it is in the form of dry powder and is sterilised." During the period of 40 years that the "**Allenburys**" **Foods** have been in use, ALLEN & HANBURYs have received from medical men, nurses and parents, an ever-increasing volume of testimony to their great practical value (see pages 117 to 121).

*The
"Lancet"
Report*

13. The "**Allenburys**" **Milk Food No. 1** is prepared from the purest cow's milk obtainable in a healthy country district, far from great towns. Immediately on arrival the milk is adequately cooled and the percentage composition having been ascertained, the excess of casein is removed, and the deficiencies of fat and milk sugar are made good by the addition of the quantities of cream and of milk sugar needed to make the composition correspond approximately with that of human milk.

*The
"Allenburys"
Milk Food
No. 1*

A small proportion of dextrin maltose is added during the process of evaporation of the product *in vacuo*; this colloid, which is the most readily digested of the carbohydrates, renders the curd of the food finely flocculent and assists in the emulsification of the fat into exceedingly fine globules. Sufficient Vitamin D is also added to ensure that the food is definitely protective against rickets, as well as helpful in the formation of healthy bones and teeth.

The method employed in evaporating this humanised milk to dryness precludes all risk of contamination with harmful germs, and at the same time conserves the natural vitamins present in the ingredients. A perfectly pure dry product is thus obtained, which is then put up in hermetically sealed tins. Water only has been extracted in the process of evaporation; therefore in preparing the Food it is only necessary to add hot water (*see paragraph 36*).

14. The medical and clinical testimony received during forty years is convincing proof that the **“Allenburys” Milk**

***Ease of
Assimila-
tion***

Food No. 1 is better than any form of humanised milk on the market. The careful preparation and proper adjustment of the milk fat, albumen and casein render this Food

particularly easy of assimilation, it being, in fact, as easy of digestion as maternal milk. It will thus be seen that the No. 1 Milk Food supplies an urgent need; namely, that of a suitable food for the very young infant during the first few weeks of life.

15. When the infant enters its fourth month further digestive powers begin to develop, especially those of starchy digestion; but it is not wise because those

***Progressive
Feeding***

functions are just beginning, to place the infant at once on a farinaceous diet; rather

should the child become accustomed to make use of and assimilate those products into which the starchy constituents of farinaceous foods are converted *after a process of digestion*.

16. ALLEN & HANBURYs therefore introduced the **“Allenburys” Milk Food No. 2**, the constituents of which are the same as in

***The
“Allenburys”
Milk Food
No. 2***

the No. 1 Food, but it contains slightly increased proportions of milk proteins and the soluble phosphates, albuminoids and sugars, obtained by the digestive action of malt on whole wheat. The soluble phosphates are

helpful at this stage in the infant's development for the

building up of the rapidly growing brain and nervous system. It is therefore the ideal food for giving a stimulus to the progressing digestive capabilities of the child, without in any way overtaxing or requiring them to undertake what nature has never intended that they should as yet perform. The No. 2 Food, like the No. 1, contains some dextrin maltose as well as an adequate proportion of Vitamin D and is therefore complete in itself, requiring only the addition of boiled (*i.e.*, sterilised) water (*see paragraph 37*). It should be given according to the directions, in gradually increasing quantities as the child grows, till the end of the sixth month, when the digestive functions are sufficiently developed to allow of some form of farinaceous food being taken. There is a tendency for a section of medical opinion to incline to the view that suitable foods containing starch may be given earlier than was formerly considered desirable.

17. The colour of the "Allenburys" Milk Foods Nos. 1 and 2 may vary somewhat in different batches, just

***Colour
of the
Milk Foods***

in the same way as the colour of cow's milk varies from day to day according to the dietary of the cattle, but this of course is of no consequence, because the composition of the foods always remains the same, and tests to ensure this are carried out daily. The colour of a food powder also depends on its fineness: the coarser the powder, the darker the colour. Some variation in the results of grinding such products is inevitable.

18. Following the argument of a progressive dietary, it is well, after the sixth month, to use a farinaceous food in which the starch is partially digested. Such a food,

***The
"Allenburys"
Malted Food
No. 3***

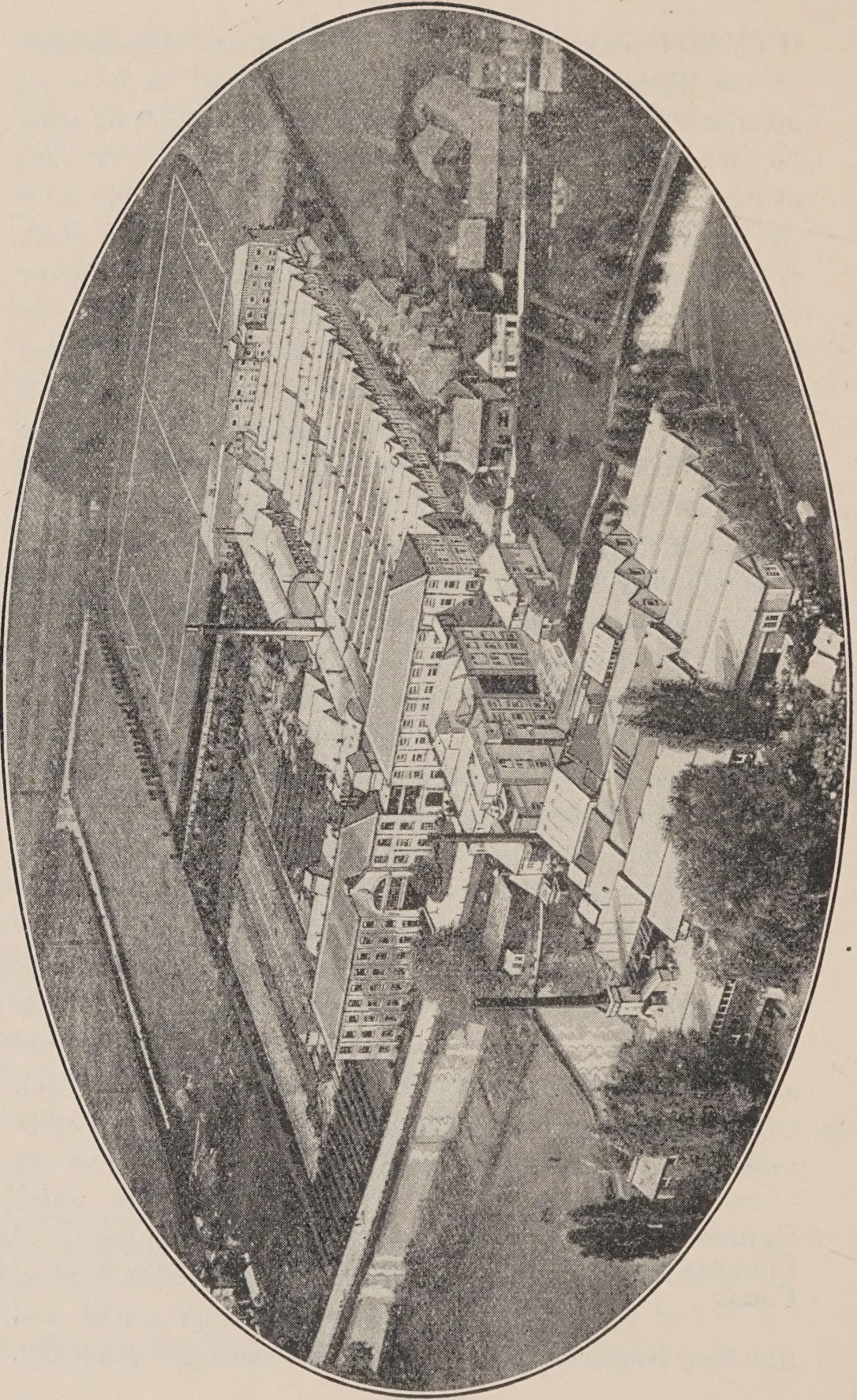
mixed with *fresh* cow's milk diluted, may then be given. In this way not only is the digestive function not overtaxed, but it is stimulated to further development by having to digest a small amount of starch in an assimilable form.

If a food of this kind were not given, the natural development of the digestive powers would be retarded, as it is an invariable law of nature that the functions of the body must be exercised if they are to develop progressively. In view of this, ALLEN & HANBURYS strongly recommend that after six months their **No. 3 or Malted Food** should be used. It is a partially digested food, composed chiefly of a carefully cooked wheaten flour, especially selected on account of the large amount of gluten contained in it. To this are added the active and nutritive constituents of pure malt, in soluble form, thus excluding the irritating particles which are prone to cause diarrhoea. The "**Allenburys' Malted Food No. 3**" is not so completely digested as to leave no work for the infant's stomach to perform, yet it is readily assimilated by even a feeble digestion; the starch grains are thoroughly broken up in the process of cooking, and rendered partially soluble by their subsequent admixture with the soluble portions of the malt. In these important respects the food is superior to those made by the cruder expedient of merely adding ground malt to baked flour. The proportions of the vital mineral elements are approximated to those of human milk by adjustments of the salts of the calcium-phosphorus ratio and the addition of a soluble salt of iron. Like the Milk Foods No. 1 and 2 it contains additional antirachitic Vitamin D in quantities definitely protective against rickets, besides the natural growth-promoting vitamin B₂ present in the malt extract. The experience of over half a century has amply proved the great value of this palatable and useful food.

19. Occasionally there is disinclination to change the particular food at the end of the stated period—either three or six months—owing to the good results which

**Gradual
Changes of
Foods**

the mother has observed. If the infant is of normal weight and strength, such disinclination should not be allowed to preclude a trial, and the best course is to make all such changes gradually.



View of Ware Mills, Hertfordshire, taken from an aeroplane

At the *beginning* of the *fourth month* the child may be fed on a mixture of three quarters of No. 1 and one quarter of No. 2 for a few days, then equal quantities of each, then one quarter of No. 1 and three quarters of No. 2, until finally all No. 2 is being given. About the middle of the *sixth month* the No. 2 Food may be prepared with milk and water in equal parts instead of with boiled water only; this will accustom the child to the use of cow's milk, with which the No. 3 Food is prepared. The introduction of the latter may be carried out by any of the following three methods :—

- (1) At the beginning of the *seventh month* a mixture of half No. 2 and half No. 3 Foods, made separately according to the directions on each label, may be given, gradually increasing the amount of No. 3 and finally omitting the No. 2 Food altogether (*see paragraph 39*).
- (2) An alternative method is to prepare 5 fluid ounces of the No. 3 Food and to add 1 fluid ounce to each of the 5 feeds of No. 2 Food, keeping of course to the correct total quantity of each feed (*see paragraph 33*). If a few days' trial is successful, then prepare 10 fluid ounces of No. 3 Food and add 2 fluid ounces to each feed. Continue in this way gradually to increase the quantities of No. 3 Food until No. 2 is eliminated altogether.
- (3) In the case of strong babies, one bottle a day of the new food only may be tried to start with, and if successful other feeds can soon be replaced by it.

Long experience, however, has shown that the gradual changes of food are usually the most successful, and they should therefore be adopted as a routine practice.

In the case of premature infants, as a general rule it is best to defer the changes of food, sometimes for as long as the whole period by which the child was prematurely born, sometimes for a lesser time, each case being decided on its merits by the nurse or physician.

Babies above the average weight and who are strong and healthy as well may sometimes be given the No. 3 Malted Food when they reach the age of five months, as their capacity for digesting starch will probably be in advance of that of the normal child. However before doing this it would be as well to ask the doctor's advice.

20. For premature or exceptionally delicate children who cannot digest the foods as normally prepared, the modifications given in paragraph 34, which have been found to suit the majority of cases, are suggested. The constant recurrence of curd in the motions of such children under normal feeding is often a symptom of deficient digestive and assimilative power. It may then be necessary to modify the food as indicated in paragraph 34, under the title "Modification Table." In all these cases it is best to seek medical advice.

***Premature
and Delicate
Children***

21. Experience has proved that the "**Allenburys**" Foods are invaluable for use on board ship, and owing to careful packing in hermetically sealed tins, they keep well in the unopened tins. All foods keep better in a cool place, and where cold storage is available travellers are advised to make use of such facilities for their stock of food. With the "**Allenburys**" Milk Foods No. 1 and No. 2, and the **Malted Food No. 3**, a family travelling by sea or land is absolutely independent of the milk supply, being able to rely upon a diet which is at once a pasteurised and humanised milk, and a unique farinaceous food (*see paragraph 41*). For export to tropical countries the extra precaution is taken of packing the Milk Foods Nos. 1 and 2 and the Diet in glass bottles, so that on arrival in those countries travellers are assured of obtaining supplies of these foods in good condition.

***For use on
Board Ship***

Care in Manufacture.

22. The "Allenburys" Foods are manufactured at Ware, in Hertfordshire, near the pastures whence the milk is obtained, and in pure fresh country air. The buildings have been specially designed and constructed on hygienic principles, so that absolute cleanliness and perfection of the whole process of manufacture are ensured, while the situation between two arms of the river, and away from dwellings, precludes the risk of contamination from drainage, foul air, or infectious disease. The fullest use is made of the available water supply for the generation of electric power by water turbines.

Ware Mills

23. The herds of cows producing the milk are pastured by large landowners and farmers in the neighbourhood; the milk has not therefore to be transported a long distance, and there is consequently no deterioration or risk of infection in transit. The milk is cooled at the farm and after conveyance to the works is

Purity of the Milk



immediately cooled again and treated before acidity, due to bacteria, has had time to develop. The receptacles and cans are all especially cleansed and sterilised under strict supervision. Samples of milk from the various farms are daily sent to the milk-testing laboratory for analysis, which is carried out by a qualified chemist, and any milk that does not satisfy the requisite high standards is rejected. The cows themselves are carefully tended, and the cow-sheds and cooling houses are kept in an efficient sanitary condition. Any cow exhibiting the slightest symptom of disease is at once removed. The pasture land lies on a well-drained gravel and chalk subsoil. The water supply to the herds is pure and good, and the pasturage is not over-stocked with cattle.



These, as every practical farmer knows, are most important factors in the maintenance of health in the milch cow. Thus every precaution has been taken to ensure a pure, rich and fresh supply of milk for the manufacture of these Foods. A few years ago the dairy farmers of Hertfordshire formed a society known as the Hertfordshire Milk-Recording Society for the encouragement of milk production under the best conditions. Among the trophies presented to the society for annual competition is an "Allenburys" Cup, given by Allen & Hanburys Ltd., for the farmer who is judged to have

been the most successful during the year in the production of milk of high quality and in good quantity. The spirit of

enterprise and emulation thus engendered should contribute in an increasing degree to the improvement of the country's milk supplies. When it is necessary to supplement the local milk supply, additional milk is obtained only from the best dairy farm districts, and from producers whose methods of handling the milk are beyond reproach. All such milk is also thoroughly tested and cooled before being passed for the manufacture of the foods. Each step in the process of manufacture, from the removal of water and the standardisation of the ingredients, up to the final packing in hermetically sealed tins, is carried out accurately and perfectly by special machinery and methods.

Vitamins.

24. In bringing up hand-fed children the feeding should not only be arranged in the form of a progressive dietary—a system which has been scientifically carried out in the “Allenburys” series of foods—but *it is absolutely essential that food containing fresh elements of diet should be introduced quite early in infancy.* Medical research

The Importance of Vitamins

has demonstrated the presence in suitable fresh foods of vitamins or fresh elements, *without which full nutrition is not obtained.* Even though the food given may be abundant and rich, if the necessary vitamins are lacking *the child does not thrive*, and may suffer from the “deficiency diseases.” Of these the commoner are rickets and scurvy, for which the treatment consists in the giving of fresh vitamin-containing foods and other products, in addition of course to improvement of the general hygienic conditions. It is now well established that ignorance and neglect of the importance of these fresh elements of diet are responsible for a great deal of infant mortality and ill health, the cause of which may have been a

puzzle to the parents. It is sad to contemplate the avoidable misery and suffering which such neglect causes, when the remedy is so easy and within the reach of all. Although it has been largely customary to defer the giving of fresh elements of diet till the age of two months is reached, some medical men advocate their use from as early as the second week without intermission, not only for hand-fed infants but also for those that are breast-fed. Infantile scurvy and rickets sometimes occur even in breast-fed children, probably owing to deficiencies in the dietary and hygiene of the mother ; the precautionary measures outlined in paragraphs 94, 95 and 110, may therefore be adopted with advantage in the case of breast-fed infants, and the possibility of diet deficiency should not be overlooked by the nursing mother.

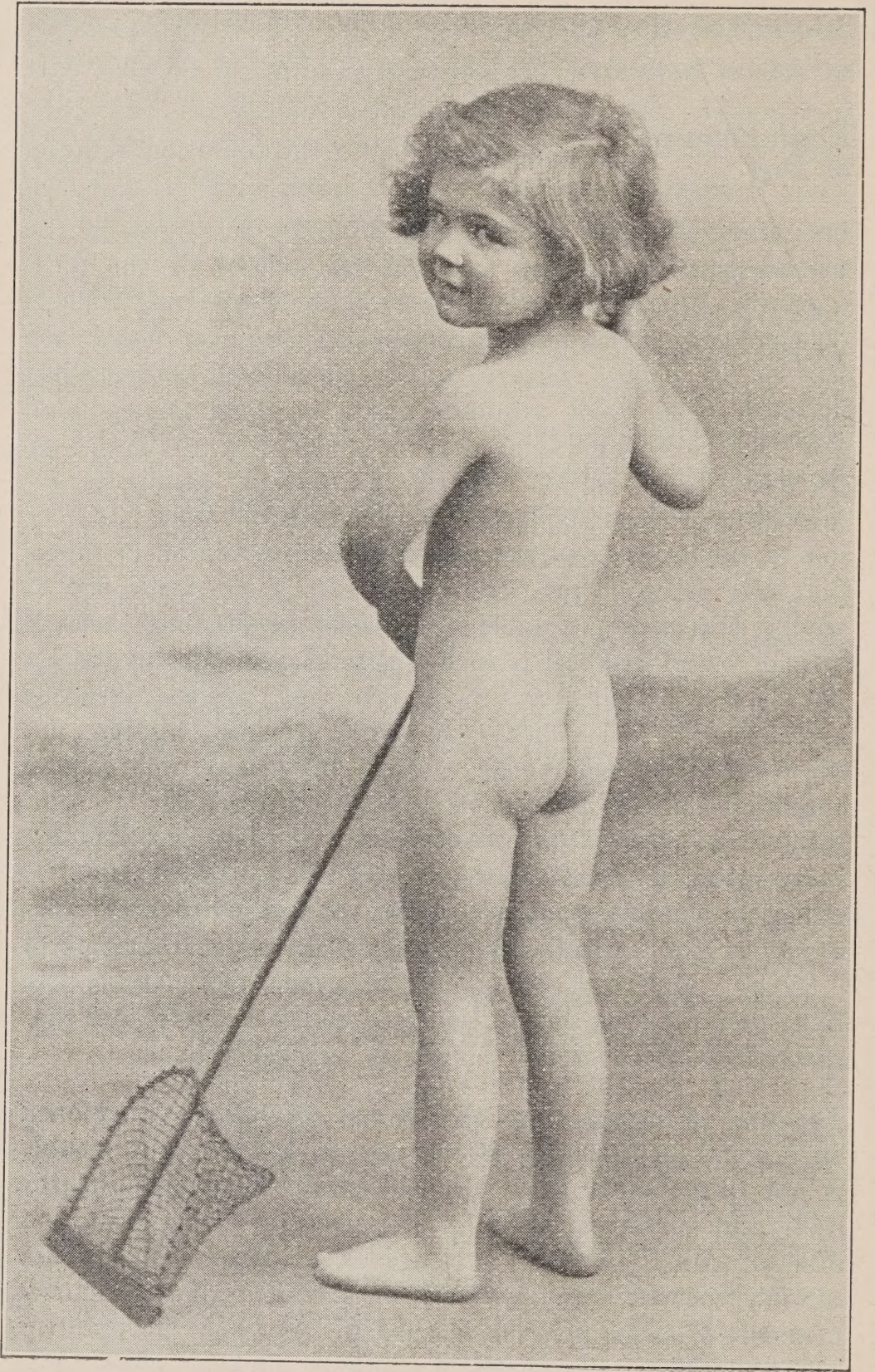
Of these food elements Vitamin D is of special interest in connection with infant feeding, since its deficiency in the dietary is a direct cause of rickets, with its resulting deformities of bone ; also such deficiency has lately been shown to be a factor in the production of faulty, badly-formed teeth which are specially prone to early decay. The importance of an adequate supply of the anti-rachitic Vitamin D in infancy has long been recognised in the "Allenburys" System of Infant Feeding and, in the manufacture of the "Allenburys" Milk Foods, every effort has been made to conserve the vitamins of the fresh milk from which they are prepared. The scientific discovery that Vitamin D can be produced by exposing certain substances to the action of artificial sunlight, in the form of ultra-violet light, has been applied in the manufacture of the "Allenburys" Foods, so that their natural vitamin content is now augmented by the addition of definite proportions of Vitamin D produced by this method, thus ensuring complete protection against rickets and assisting in the formation of healthy bones and teeth.

25. In the following table will be found a list of fresh elements of diet in two parts. The articles included in the first part

***Fresh Elements
of Diet***

are rich sources chiefly of the anti-infective and growth-promoting Vitamin A and of the antirachitic Vitamin D, but some of them also contain Vitamin B; those in the second part are chiefly valuable as sources of the anti-scorbutic Vitamin C, of which even the best cow's milk is deficient. It is therefore *essential that fruit juices should form part of the dietary of every infant*. It will be obvious that in addition to their vitamins many of them possess high nutritive value, and some may be given with advantage up to three times daily. Where appropriate, quantities for different ages are suggested, but here again much must be left to the discretion and experience of the mother or nurse. Cod-liver oil and fresh orange juice may be mentioned as among the most valuable and easily obtainable of these articles. Cod-liver oil is such a potent prophylactic against disease and ill-health that its use is recommended as a routine precaution for all infants and many growing children, but those that are below the average in weight and general condition should always be given cod-liver oil in some form from one to three times daily. If plain cod-liver oil, when given in the doses mentioned below, should disagree, either the quantity may be subdivided and given three times a day, or the "Allenburys" 33% Cod-Liver Oil Emulsion or "Bynol" Malt and Oil should be tried. Only cream free from preservatives should be used, and it is preferable that the source of the cream should be certified milk.

The use of orange juice should not be lightly abandoned on account of looseness of the bowels, because this trouble is not infrequently due to a lack of fresh elements in the diet, and perseverance in giving the juice, sweetened and diluted, will often help to alleviate the condition. In the case of infants showing any tendency to rickets or infantile scurvy medical advice should at once be sought, and both the quantity and frequency of the doses of cod-liver oil and orange juice must be increased (*see paragraphs 94 and 95*).



Baby Bevan. Age 4 years, 10 months

List of Fresh Elements of Diet.

I.—Chiefly for the provision of Vitamins A and D.

Fresh Elements.	Quantities for Child.	
	Under 6 months.	Age 6 to 12 months.
1 Butter		
2 Cod-Liver Oil	$\frac{1}{4}$ to $\frac{1}{2}$ a teaspoonful	1 to 2 teaspoonfuls
3 The "Allenburys" Cod-Liver Oil Emulsion	1 teaspoonful	1 to 2 teaspoonfuls
4 "Bynol" Malt and Oil	$\frac{1}{2}$ a teaspoonful	1 teaspoonful
5 Cream (without preservatives)	1 to 2 teaspoonfuls	3 to 4 teaspoonfuls
6 Pure Milk (whole and raw) ...		
7 Egg Yolk (raw) ...	$\frac{1}{2}$ a teaspoonful	1 teaspoonful
8 Spinach or Lettuce Purée ...	1 to 2 teaspoonfuls	3 to 4 teaspoonfuls
9 "Bynotone"		$\frac{1}{2}$ a teaspoonful

II.—Chiefly for the provision of Vitamin C.

Fresh Elements.	Quantities for Child.	
	Under 6 months.	Age 6 to 12 months.
1 Fresh Orange Juice (sweetened) ...	1 to 3 teaspoonfuls	3 to 4 teaspoonfuls
2 "Allenburys" Orange Juice (concentrated)	$\frac{1}{2}$ to $1\frac{1}{2}$ teaspoonfuls	$1\frac{1}{2}$ to 2 teaspoonfuls
3 Fresh Tomato Juice ...	$1\frac{1}{2}$ to $4\frac{1}{2}$ teaspoonfuls	$4\frac{1}{2}$ to 6 teaspoonfuls
4 Fresh Cabbage Juice ...	$\frac{1}{2}$ to 1 teaspoonful	2 to 3 teaspoonfuls
5 Raw Swede Juice ...	$\frac{1}{2}$ to 1 teaspoonful	2 to 3 teaspoonfuls
6 The "Allenburys" Beef Juice ...		$\frac{1}{2}$ to 1 teaspoonful

26. Oxidation through exposure to air or too great or too prolonged heating *destroys some vitamins*, therefore in preparing spinach or lettuce purée, the green leaves should not be boiled, but merely steamed for 20 minutes or less. The softened leaves should then be rubbed through a fine hair sieve, and milk or milk and cream added, and the mixture thoroughly stirred. To prepare raw swede (or, if unavailable, turnip) juice, the clean cut surface should be grated on an ordinary kitchen grater, and the pulp obtained should be squeezed in muslin. Tomato juice should of course be strained through muslin to remove the seeds. For younger children the "Allenburys"

Preparation of the Fresh Substances

Beef Juice can be mixed with the food or milk, when this is at the right temperature to be given to the child ; and for older children it can be poured over mashed potatoes or bread crumbs, with or without previous dilution with luke-warm water. If the water is too hot the soluble albuminoids contained in the Beef Juice will be coagulated. Fruit and vegetable juices are best given in the morning between meals, and such articles as cream, cod-liver oil emulsion, "Bynotone," etc., can either be added to the food or given separately immediately after the meal. The temperature of the food or milk should not exceed 100°F. when any of these fresh substances are added (*see paragraph 35*).

When possible only sweet ripe oranges should be purchased. If the juice tastes too sharp, the infant may take a dislike to it ; to prevent this the juice can be diluted with a little cold water, and should always be sweetened with sugar. For convenience the "Allenburys" Orange Juice may be used. This natural product consists of the juice of fresh oranges, concentrated to double strength and sweetened, and contains no alcohol or chemical preservatives. It is prepared by a process which retains the quality of the fresh fruit as well as its activity for a considerable period. It is put up in five-ounce amber bottles, which are handy for use, especially when travelling.

27. When children reach the age of about ten months, or earlier in many cases, they generally need some more solid diet besides bottle-food for their 10 a.m. and 6 p.m. meals.

*The
"Allenburys"
Rusks*

The "Allenburys" Rusks admirably supply this want. In appearance, the rusks resemble crisp toast biscuits ; they are prepared from specially selected flours, rich in protein, muscle-forming constituents, and have a pleasant and slightly sweet flavour when eaten plain. Added to hot milk or hot milk and water, and sweetened, the rusks provide a semi-solid, nourishing and easily assimilable food for young children ; the malting

process partially predigests the cereal portion, thus making the rusks more valuable as a food than the commoner preparations of flour, such as bread and milk. Children, when teething (*see paragraphs 72 and 73*), instinctively like to nibble and gnaw at something that is hard. Eaten dry, the Rusks aid the cutting of the teeth, and usually become sufficiently softened by the saliva to be swallowed safely and easily. At the onset of teething an occasional rusk may be given to children even as young as six months. They do not often swallow much of it, but the sensation of nibbling is gratifying to the child, and helpful to the process of teething; however, it is as well that the child, while nibbling, should be carefully watched to prevent any possibility of choking. The rusks may be eaten as biscuits, either plain, buttered, or with honey or jam. They are recommended lightly baked with milk and egg, to supply a light, appetising form of custard pudding. The **"Allenburys" Rusks** are valuable as an article of food for Infants, Children and Adults. Being packed in hermetically sealed tins, they remain in good condition in any climate. The natural vitamin content of the Rusks, like that of the "Allenburys" series of Infant Foods, is also augmented by the addition of definite proportions of Vitamin D (*see paragraphs 24, 94 and 95*). For supper, a feed of the **Malted Food No. 3** or **Diet** may be given, and the use of these foods can be continued with advantage for this meal until the child is three or four years old.

28. The **"Allenburys" Milk-Food Chocolate** contains the Milk Food No. 1 and therefore combines useful nutritive constituents with a chocolate of the highest purity, and is a complete food in concentrated form, which is digested and assimilated with ease. For children it is an excellent sweetmeat, greatly to be preferred to the ordinary starches and sugars which affect the growing teeth and derange the digestion. Small quantities may be given daily

The
"Allenburys"
Milk-Food
Chocolate

to children from about the age of 18 months and upwards, preferably after meals or after doses of medicine, when the pleasant flavour of the Milk-Food Chocolate will be particularly appreciated by the child.

29. The “**Allenburys**” **Milk-Cocoa**, being partially pre-digested during manufacture, is easy of assimilation, and can be readily taken by the nursing mother,

*The
“Allenburys”
Milk-Cocoa*

the invalid, and those who cannot digest cocoa as usually prepared. It is of great value to children of two years of age and upwards, and thus carries on the dietetic course commenced at birth with the **Milk Food No. 1**. It is delicious in flavour and requires the addition of boiling water only to render it ready for use. Of course, those requiring a still richer food can prepare it with milk and water or all milk, adding cream to taste.

30. The “**Allenburys**” **Breakfast Food** is prepared from carefully cooked wheaten flour, fresh whole milk and extract of malt. It is in crisp granules which are

*The
“Allenburys”
Breakfast
Food*

attractive in taste and appearance to both children and adults. The “**Allenburys**” **Breakfast Food** is very nourishing and sustaining ; it is more readily digested than porridge and other forms of oatmeal and is less likely to overheat the blood. The “**Allenburys**” **Breakfast Food** may be given to children of two years and upwards ; it makes an ideal breakfast or supper dish. It may be mixed with milk or cream and sweetened to taste if necessary. It is preferred by most people when prepared in the following manner :—
Serve in a porridge plate or bowl, just moisten the food with a little cold milk, stir and add cream. To preserve the crispness of the granules, it should be eaten as soon as it is mixed. Sprinkled over stewed apples or prunes, or over a fresh orange, peeled and cut into portions with a knife, it is delicious.

The Quantity and Time for Feeding.

31. Both in breast and in hand feeding it is easy to overfeed the child. Indeed, very many infants are systematically overfed. It is of the utmost importance that the young mother should realise early how small an infant's stomach is. At birth it will hold little more than an ounce of fluid. Yet mothers are constantly afraid that they are starving their young infants if they do not give them more food when they cry for it. They are starving them in a sense, for the children fall away and pine, but it is from excess rather than deficiency of food.

Quantity of Food

Often a mother will say : " All my children bring up their food during the first month or so, and yet I always feed them on the breast " ; and she may suggest that their digestions are weak from some inherited tendency. Further enquiry may show that she has an abundance of milk, and by draining the breast persistently, distends her baby's stomach, until, unable to hold more, it rebels by vomiting. The mother should remember that it is not the *amount* of food swallowed, but only the quantity that is *digested and assimilated*, which nourishes the child. Speaking generally, it is therefore, more often than not, useless to attempt to force an infant to take a larger quantity of food than that for which there is definite inclination.

With bottle-fed infants, feeding is frequently even worse regulated, and it is quite as important to get the quantity as well as the nature of the food right. It is wrong to feed the child because it cries, as is so commonly done. It does not always cry because it is hungry, but very often because it has indigestion, probably from overfeeding. It is especially hard to convince nursing mothers of this, but examination of the distended stomach and unhealthy curdy stools affords ample evidence of the cause in many cases.

32. In the hours of feeding *regularity should be the aim* of the mother or nurse, and if perseveringly practised, the benefits to mother and child will soon be appreciated.

Hours of Feeding

During the day the infant should, if necessary, always be roused to be fed, and, if the infant be regularly awakened from the first, he will soon wake himself at the proper time. The question of three or four-hourly intervals between feeds must be decided on the merits of each individual case, and a short trial is usually sufficient to enable a decision to be made. The subject is dealt with in paragraph 33, where tables for both three and four-hourly intervals will be found. The last meal at night should be given about 10 o'clock, and if the child is healthy the next feed should not be given until about 6 o'clock the following morning. The habit of sleeping for 8 hours at a stretch without a feed is soon acquired, and the long night's rest is beneficial to both mother and child. In exceptional cases the mother or nurse may find it necessary in their discretion to modify or reduce the intervals of feeding (*see paragraph 34*). The same rules apply equally to breast as to bottle feeding, and the same method should be employed, namely, the infant should be *held in the arm* during the meal, which should last from fifteen to twenty minutes. As a precaution against flatulence, before putting the child to rest it is a good plan to lay him over the shoulder for a few moments gently patting his back. This will give him a chance of bringing up any wind which may have been swallowed during the meal and may save much bother from the restlessness and wakefulness so often caused by flatulence (*see paragraph 79*).

Time and Quantity Tables.

For an average healthy baby, *i.e.*, one weighing about
7 lbs. at birth.

33. These tables are only given as a general guide. Infants vary so much in size and strength, that the absolute amount of food required must be left to the discretion of the mother or nurse. As a general rule feeding should be according to weight rather than to age (*see paragraph 58*). Babies over the average

weight and strength may sometimes be given more than the quantities stated. On the other hand, *premature and delicate babies* may need weaker, smaller and more frequent feeds. In such cases a *doctor should always be consulted*. Some infants do best when fed at three-hourly intervals, others when fed at four-hourly intervals even from birth. For convenience both methods are given in the following tables, which serve as a general guide, and are applicable to an average healthy baby weighing about 7 lbs. at birth.

THREE-HOURLY TABLE.

Age	Amount of each Feed	Total in 24 Hours	Number of Feeds	Intervals	Suggested Hours of Feeding
1-4 weeks	2-3 fl. ozs.*	12-18 fl. ozs.*	6	3 hrs.	6, 9, 12, 3, 6, 10
1-2 months	3-4 "	18-24 "	6	3 "	" "
2-3 "	4-5 "	24-30 "	6	3 "	" "
3-4 "	5-5½ "	30-33 "	6	3 "	" "
4-5 "	5½-6 "	33-36 "	6	3 "	" "
5-6 "	6-6½ "	36 "	6-5	3-4,,	
6-7 "	6½-7½ "	38 "	6-5	3-4,,	
7-8 "	7½-8 "	40 "	5	4 "	6, 10, 2, 6, 10
8-12 "	8-10 "	40-50 "	5	4 "	" "

* One fluid ounce is equal to about two tablespoonfuls.

NOTE.—The change from 3-hourly to 4-hourly feeding should in most cases be made as early as possible, but it often takes place during the 6th or the 7th month.

FOUR-HOURLY TABLE.

Age	Amount of each Feed	Total in 24 Hours	Number of Feeds	Intervals	Suggested Hours of Feeding
1-4 weeks	2½-3½ fl. ozs.*	12-18 fl. ozs.*	5	4 hrs.	6, 10, 2, 6, 10
1-2 months	3½-4½ "	18-24 "	5	4 "	" "
2-3 "	4½-6 "	24-30 "	5	4 "	" "
3-4 "	6-6½ "	30-33 "	5	4 "	" "
4-5 "	6½-7 "	33-36 "	5	4 "	" "
5-6 "	7 "	36 "	5	4 "	" "
6-7 "	7½ "	38 "	5	4 "	" "
7-8 "	7½-8 "	40 "	5	4 "	" "
8-12 "	8-10 "	40-50 "	5	4 "	" "

* One fluid ounce is equal to about two tablespoonfuls.

Many healthy infants do well on five feeds in the 24 hours, given at four-hourly intervals even from birth, but there are some strong infants who will not tolerate such lengthy intervals and their constant crying prior to meal times may

make it useless to persevere with this method. In such cases $3\frac{1}{2}$ -hourly intervals may be tried before deciding to revert to three-hourly feeds. If undue sickness occurs in infants fed three-hourly, then four-hourly intervals should be tried. Other precautions which can also be taken are as follows :—

- (1) Reduce the quantities of the prepared food and/or of the food powder, *i.e.*, give smaller and/or weaker feeds.
- (2) Add citrate of soda to every bottleful of food as directed in paragraph 78.
- (3) See that the infant is *held in the arm* during the whole of the meal, which should last from 15 to 20 minutes.

In using the “Allenburys” progressive system of dietary, it will be noticed that the directions given above and on the label of each tin involve a gradual increase in the amount of fluid food given to the infant, the composition of the fluid food remaining constant. The differing constitution of the “Allenburys” Foods Nos. 1, 2 and 3, and of the “Allenburys” Rusks, provides the gradual increase in strength that is essential to fulfil the progressive physiological requirements of early life.

Directions for preparing different quantities of the series of three foods will be found in paragraphs 35 to 38.

34.

Modification Table.

The “ALLENBURYS” MILK FOOD No. 1 is so modified during manufacture that both fat and proteins are present in the proportions found in human milk. Further modifications for the feeding of premature and delicate infants can easily be made, as shown below.

To ensure accuracy in carrying out the following directions, the glass Powder Gauge should be used for measuring the food powder, and one of the liquid food measures for measuring the prepared food. Illustrations of these will be found in paragraph 35.

Directions for the Nurse.

A. For Premature Infants

Take one-quarter ounce, or two “parts” in the powder gauge, of the “ALLENBURYS” MILK FOOD No. 1. One teaspoonful of cream. Sufficient hot water to make the total amount measure four fluid ounces, or eight tablespoonfuls. A small quantity of “Allenburys” Dextrin Maltose No. 1 may be added if desired.

Give 1 oz. every two hours. Ten feeds in 24 hours.

If the child is relaxed, give less cream, or omit it for a time; if constipated, increase the amount of cream slightly.

**B. For
Delicate
Infants**

From 1 to 3 weeks.

Take one-quarter ounce, or two "parts" in the powder gauge, of the "ALLENBURYS" MILK FOOD No. 1. One teaspoonful of cream. Sufficient hot water to make the total amount measure three fluid ounces or six tablespoonfuls.

Give 1½ ozs. every two hours. Ten feeds in 24 hours.

If the child is relaxed, give less cream, or omit it for a time; if constipated, increase the amount of cream slightly.

**C. For
Delicate
Infants**

From 3 to 12 weeks.

Take one-half ounce, or four "parts" in the powder gauge, of the "ALLENBURYS" MILK FOOD No. 1. One teaspoonful of cream. Sufficient hot water to make the total amount measure four-and-a-half fluid ounces or nine tablespoonfuls.

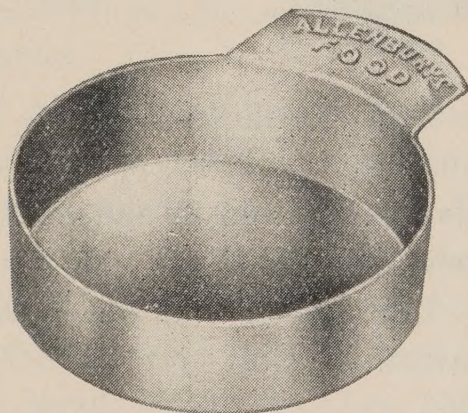
Give 2 to 3 ounces every two-and-a-half to three hours according to the age of the child.

If the child is relaxed, give less cream, or omit it for a time; if constipated, increase the amount of cream slightly.

Directions for Preparation.

35. As a ready means of measuring the Foods each tin contains the little metal measure illustrated below.

MEASURE.

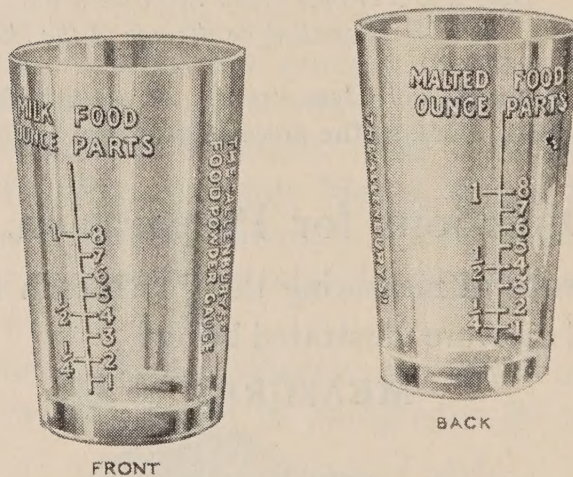


FULL SIZE

A dry spoon should be used to fill and to level off the food in the measure; the food should be filled in lightly and should not be pressed down. One level measureful equals two "parts" of the Powder Gauge, and four level measurefuls equal one ounce by weight.

We still supply the "Allenburys" Powder Gauge, as it is obvious that, when several measurefuls are required, greater accuracy can be assured by the use of the gauge, which also obviates any necessity to weigh the quantities required ; spoons are not always of standard sizes, and for this reason are not a trustworthy guide, but should be used to fill the measure or gauge, particularly when the tin of food is partly used.

POWDER GAUGE.

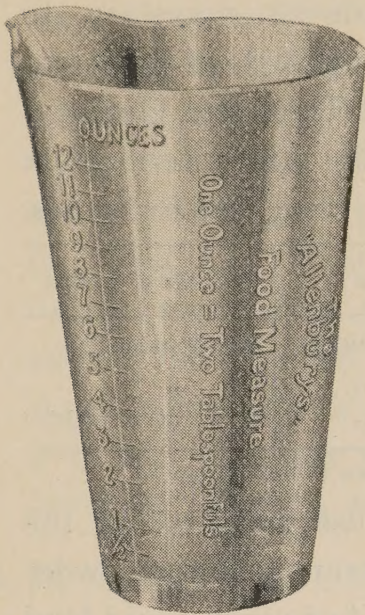


As will be seen from the illustration, the **Powder Gauge** is marked in ounces and "parts" on one side for measuring the **Milk Foods Nos. 1 and 2**, and on the other side for the **Malted Food No. 3**. Each ounce is divided into eight "parts." Two "parts" of the Powder Gauge equal one level measureful.

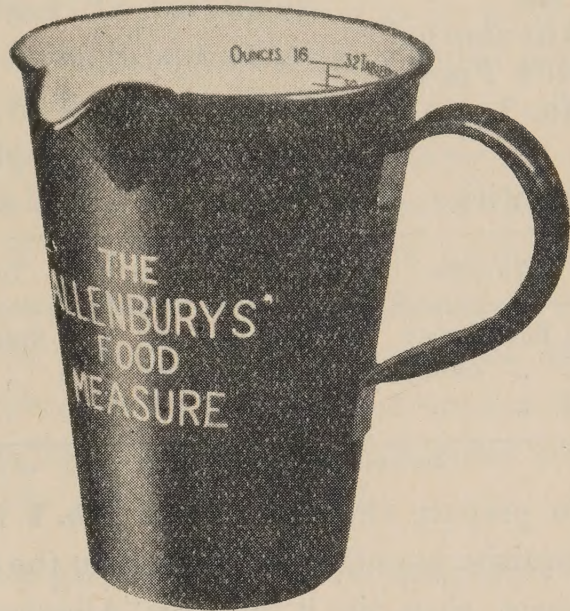
The Liquid Food Measures are for determining the quantity of mixed food to be given at each meal (*see paragraphs 31 to 33*).

The glass measure holds 12 fluid ounces, the enamelled iron measure 20 fluid ounces ; both are marked in fluid ounces and tablespoonfuls.

LIQUID FOOD MEASURES.



GLASS



ENAMELLED IRON

FLUID MEASURES.

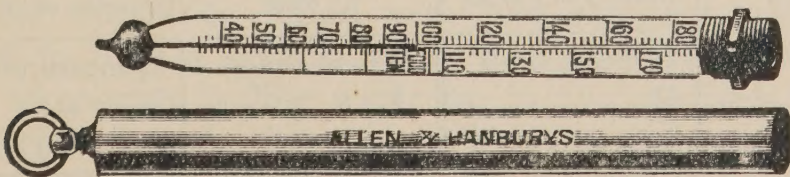
A teaspoonful of liquid should measure 1 fluid drachm.
 A dessertspoonful of liquid should measure 2 fluid drachms.
 A tablespoonful of liquid should measure 4 fluid drachms,
 or half a fluid ounce.

Two tablespoonfuls of liquid should measure 8 fluid drachms,
 or 1 fluid ounce.

The temperature of the food, when given to the infant,
 should always be about 100°F., never over. A suitable

The "Allenburys" Thermometer

thermometer known as the "Allenburys" is
 supplied for taking the temperature of the
 food. It can also be used as a bath
 thermometer, and is marked to show the
 temperatures for tepid, warm, and hot baths. This ther-
 mometer screws into a nickel case, is under six inches in
 length, and can be safely carried in the pocket.



36.

**The
"Allenburys"
Milk Food
No. 1**

In the following table will be found the quantities of food powder necessary to make up different quantities of prepared food mentioned in the Time and Quantity Tables in paragraph 33. Any intermediate quantities can readily be calculated from these figures.

To make	Quantity of Powder	To make	Quantity of Powder
1 fluid ounce	$2\frac{2}{3}$ measureful	4 fluid ounces	$2\frac{2}{3}$ measurefuls
2 " ounces	$1\frac{1}{3}$ measurefuls	5 " "	$3\frac{1}{3}$ "
3 " "	2 "	6 " "	4 "(1 oz. weight)

One level measureful equals 2 "parts" of the glass Powder Gauge.

To prepare the **Milk Food No. 1** for use measure out the requisite quantity of dry food by the measure or in the powder gauge, then tip it into the "Allenburys" or other liquid food measure; mix the food powder with just sufficient cold boiled water to form a smooth paste, then add hot water up to the required quantity of prepared food. The water should be boiled and allowed to cool to 150°F. before adding it to the food. The temperature of the food should never exceed 100°F. when given to the infant (see paragraph 35). When the food is given from birth it may be found advisable in some cases to modify these directions in accordance with the suggestions contained in paragraph 34.

37.

**The
"Allenburys"
Milk Food
No. 2**

In the following table will be found the quantities of food powder necessary to make up different quantities of prepared food mentioned in the Time and Quantity Tables in paragraph 33. Any intermediate quantities can readily be calculated from these figures.

To make	Quantity of Powder	To make	Quantity of Powder
4 fluid ounces	$2\frac{2}{3}$ measurefuls	7 fluid ounces	$4\frac{2}{3}$ measurefuls
5 " "	$3\frac{1}{3}$ "	8 " "	$5\frac{1}{3}$ "
6 " "	4 "(1 oz. weight)		

One level measureful equals 2 "parts" of the glass Powder Gauge.

To prepare the **Milk Food No. 2** for use measure out the requisite quantity of dry food by the measure or in the powder gauge, then tip it into the "Allenburys" or other liquid food measure ; mix the food powder with just sufficient cold boiled water to form a smooth paste, then add hot water up to the required quantity of prepared food. The water should be boiled and allowed to cool to 150°F. before adding it to the food. The temperature of the food should never exceed 100°F. when given to the infant (*see paragraph 35*). *As these Milk Foods are free from all harmful micro-organisms, it is only necessary to prepare them with water that has been boiled to ensure a perfectly pure infant's food.*

38. In the following table are given the *minimum* quantities of food powder and milk necessary to make up different quantities of prepared food mentioned in the Time and Quantity Tables in paragraph 33. After the age of 8 months the proportions of food powder and milk may often be increased with advantage, especially in the case of strong and well-grown children.

**The
"Allenburys"
Malted Food
No. 3**

To make	Quantity of Food Powder	Quantity of Milk
5 fluid ounces	1 $\frac{2}{3}$ measurefuls	3 fluid ounces
6 " "	2 " "	3 $\frac{1}{2}$ " "
7 " "	2 $\frac{1}{3}$ " "	4 " "
8 " "	2 $\frac{2}{3}$ " "	4 $\frac{2}{3}$ " "
9 " "	3 " "	5 $\frac{1}{4}$ " "
10 " "	3 $\frac{1}{3}$ " "	6 " "
11 " "	3 $\frac{2}{3}$ " "	6 $\frac{1}{2}$ " "
12 " "	4 " (1 oz. weight)	7 " "

One level measureful equals 2 "parts" of the glass Powder Gauge.

To prepare the **Malted Food No. 3** for use, after measuring out the requisite quantities of dry food and milk, the food powder should be mixed with just sufficient cold boiled water to form a smooth paste, then add the boiling milk, and afterwards boiling water up to the required quantity of prepared food. Sweeten with a dessertspoonful or less of sugar, according to the age of the child and the quantity of

each feed. The temperature of the food should never exceed 100° F. when given to the child (*see paragraph 35*).

Owing to the difficulty, in many cases, of obtaining uncontaminated supplies, it is recommended that the milk used in preparing the food be boiled; however, if preferred, where "grade A" quality or supplies of assured purity can be obtained the food may be mixed with a little of the cold milk, boiling water added, and the remaining portion of the fresh unboiled milk stirred in. If necessary, the milk may be warmed to the required temperature before mixing.

When using all milk for preparing the **Malted Food No. 3** it is best to mix the powder with a little cold milk, boil half the remainder of the milk, adding it to the paste, and when the mixture has cooled down to about 150° F., stir in the remaining portion of the fresh unboiled milk.

Other methods of preparing the **Malted Food No. 3** are described in paragraphs 39 to 42.

39. Those who prefer to make the food *thinner in consistence* than the above, should, after mixing the food powder to a smooth paste with cold boiled water, boil the milk and remainder of the water in a saucepan and add it gradually to the food paste, while constantly stirring. Then place

**To Make
Malted Food
No. 3 Thin**

the food measure or vessel containing the food in a saucepan of water heated to a temperature of 130° F. and allow it to stand there for half-an-hour before use, keeping up the temperature of the water to 130° F.

By this procedure first gelatinisation and then complete digestion of the starch is ensured.

This method of preparing the food is recommended in the following circumstances :—

- (1) If any difficulty should be experienced in making the change from the Milk Food No. 2 to the Malted Food No. 3 at the beginning of the seventh month (*see paragraph 19*).
- (2) If the change to the Malted Food No. 3 should be followed by constipation (*see paragraph 85*), and in all cases of chronic constipation.
- (3) When the child suffers from indigestion. (*See paragraphs 77 and 78.*)

40. *To make the food thicker*, mix the powder to a thin cream with half the required quantity of cold milk indicated in the table.

To Make Malted Food No. 3 Thick Boil the remainder of the milk with sufficient water to make the required quantity of food. Pour in the food slowly in a thin stream, stirring continuously, and continue boiling for about a minute after all the food has been added. Treating the food in this manner will stop the continued action of the malt extract on the burst starch granules. The latter method of preparing the food gives the child's digestion more to do, and will be found to suit robust children, who sometimes prefer a thicker food to the Malted Food No. 3 as usually prepared.

The majority of adults certainly prefer the thicker food, and made with milk only, as it is more palatable and has greater "body." For them the flavour of the food may be agreeably varied by the addition of the "Allenburys" Milk Food Chocolate, Café Vierge, grated nutmeg, etc.

41. Under special circumstances, as in travelling, or when a pure supply of cow's milk cannot be assured, the "Allenburys" Milk Food No. 1 can be used instead of milk to prepare the Malted Food No. 3. In the following tables are given the minimum quantities of the two food powders necessary to make up different quantities of prepared food mentioned in the Time and Quantity Tables in paragraph 33. The proportions of the respective food powders may of course be varied to suit individual cases.

To make		Quantity of Milk Food No. 1	Quantity of Malted Food No. 3
5 fluid ounces	...	2½ measurefuls	1¼ measurefuls
6 " "	...	3 " "	1½ " "
7 " "	...	3½ " "	1¾ " "
8 " "	...	4 " (1 oz. weight)	2 " (½ oz. weight)
9 " "	...	4½ " "	2¼ " "
10 " "	...	5 " "	2½ " "
11 " "	...	5½ " "	2¾ " "
12 " "	...	6 " "	3 " "

One level measureful equals 2 "parts" of the Powder Gauge.

To prepare the food in this way, after measuring out the requisite quantities of the two food powders by the measure or in the powder gauge, tip them into the "Allenburys" or other liquid food measure and mix the powder with just sufficient cold boiled water to form a smooth paste, then add boiling water up to the required quantity of prepared food. Sweeten with about a teaspoonful of sugar, or according to taste and quantity of food. The temperature of the food should never exceed 100° F. when given to the child (*see paragraph 35*).

42. In the case of the Milk Foods Nos. 1 and 2, it is not wise, in order to save trouble, to prepare a sufficient quantity of food to last for several meals and to keep it warm in any form of apparatus. The cream fat is in that case apt to separate and float at the top of the mixed food. For the sake of the child's digestion the food should be freshly made for each meal, and the best results are obtained when this course is followed. The "**Allenburys**" **Milk Foods** require the addition of hot water only to render them ready for use, so that both trouble and risk are reduced to a minimum (*see paragraphs 36 and 37*).

As regards the Malted Food No. 3, the case is somewhat different, in that under certain circumstances, viz. :—during hot weather and whenever there is any doubt as to the freshness of the milk, *immediately the milk is delivered* a quantity of food should be made up sufficient to last until the next delivery of milk. The prepared food should then be placed in a scrupulously clean jug, covered over and stored in a cool place, preferably an ice chest or failing that the larder. With the spread of electricity the production of ice in the home is becoming an increasingly feasible proposition, and all who can afford it should install a plant. For each meal the requisite amount of food can then be

poured into the feeder, and the bottle placed in a double saucepan or in any vessel of hot water until the temperature of the food reaches 100° F. The food in the jug should be well stirred before it is poured into the bottle.

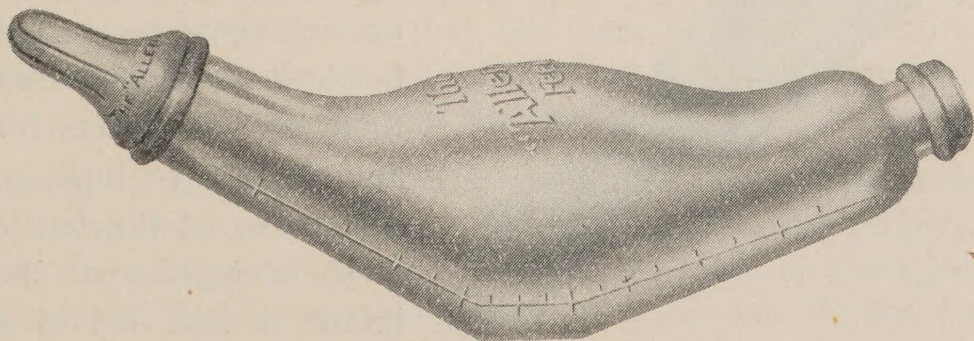
43. All flasks are difficult to scour thoroughly and, although they may be well washed out, experience has shown that

Use of Flasks when milk or any form of milk food is constantly kept in them, they retain a somewhat disagreeable lactic smell, which will often cause the food to turn sour rather quickly. Vacuum flasks are useful for keeping the water, which has been previously boiled, hot and ready for use, especially in travelling, and it then takes very little time to mix the food afresh for each meal.

Care and Use of the Feeder.

44. The preceding sections have dealt with the various methods of feeding infants. A scientifically correct method is of little use if the mother does not know how to apply it.

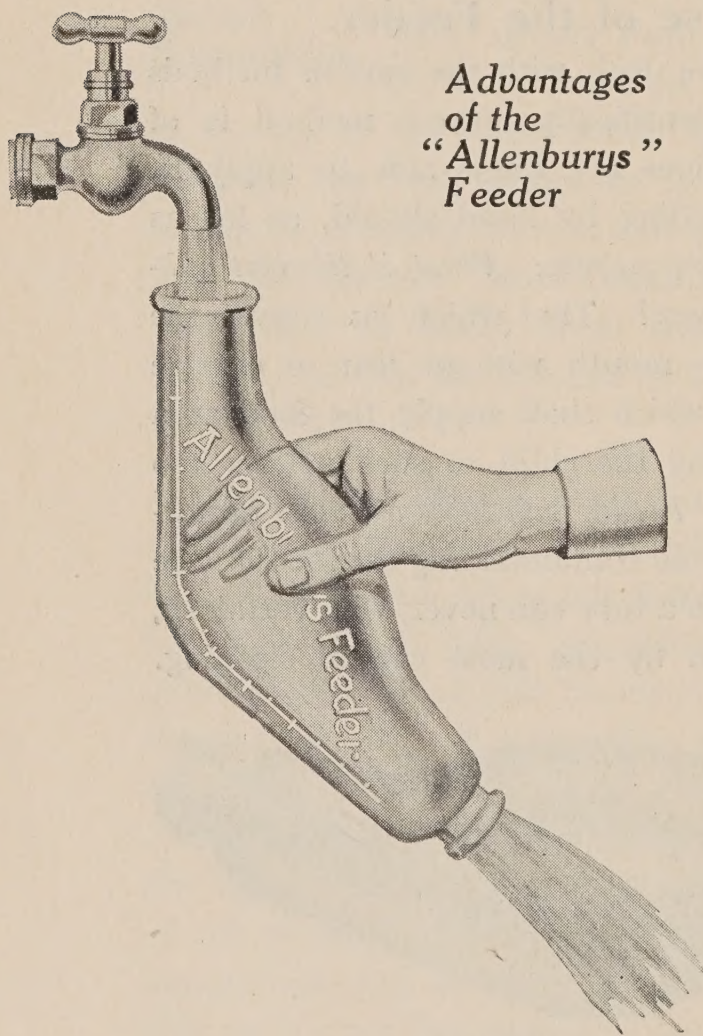
Here, again, feeding by hand should, as far as possible, resemble nature. **Bottles** *What is the best substitute for the breast?* That which can convey the proper food to the child's mouth without fear of outside germ contamination, and which shall supply the food at a proper rate of flow, causing the child to suck neither too vigorously nor too gently. *Bottles with tubes are quite unsuitable.* It is impossible to avoid contaminating the food if it be passed through a tube, since a tube can never, with certainty, be freed from germs, even by the most careful cleaning.



Capacity 8 fluid ounces or 16 tablespoonfuls.

The only admissible form is a boat-shaped bottle, with a properly constructed nipple or teat at one end, and a valve at the other. Many bottles of this shape have no vent or valve to let in the air, so that the child is unable to get the food as rapidly as it ought. Others, again, have the air inlet close to the nipple ; in consequence, air is sucked in with the milk and is swallowed. This is a very common cause of wind colic and diarrhœa. Other bottles are complicated, having screw stoppers which are almost impossible to clean perfectly. Many are so constructed that the nipples themselves cannot be cleaned because they cannot be turned inside out.

45. ALLEN & HANBURYS, recognising these difficulties and defects, introduced the “Allenburys” Feeder many years



*Advantages
of the
“Allenburys”
Feeder*

ago now, and have from time to time embodied several minor improvements in its design. The bottle, being open at both ends, can be placed under the tap *immediately after use* and efficiently scoured under full pressure. It is not even necessary to use a brush, which itself, being sometimes imperfectly cleansed, may introduce micro - organisms. The bottle is so shaped that there are no corners for any deposit to lurk in. The curve of the bottle is so arranged that the infant is best fed in a half-reclining position—

the natural attitude for a child at the breast (*see paragraph 32*). This bottle was the first to replace those with unhygienic tubes, and represented a great advance on its predecessors. The graduations on the bottle form a general guide as to quantities, but with moulded glass bottles it is impossible to guarantee accuracy; accordingly it is preferable to use one of the food measures (illustrated in paragraph 35) when mixing the food. However, if the graduations on the bottle are used as a rough guide, the feeder should be held with the valve end downwards and the small middle flat surface in a vertical position,

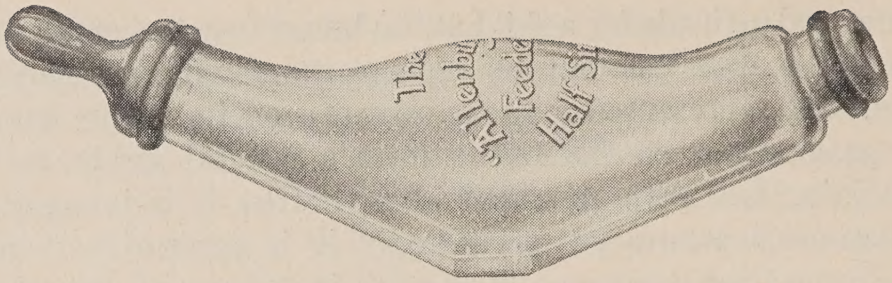
The nipple or teat is of transparent rubber, and should be turned inside out for cleaning. It is also so constructed as to hold fast to the bottle, and not to require any independent fastening. The bottle should be filled at the teat end, and the quantity of milk or food to be given to the child can, if desired, be measured approximately from the valve end. Before the teat is pulled on to the bottle, the glass of the neck should be moistened. The special arrangement of the air inlet has many advantages over other forms of feeder.

The valve, which is of transparent rubber, has a little slit at the summit for the admission of air, and acts perfectly, and is of such a form that it cannot leak; it admits air only *behind* the column of food. This prevents—

- (1) The sucking in or collapse of the teat.
- (2) The swallowing of air, which causes wind colic, etc.

It is impossible to prevent such troubles in all bottles where the so-called valve is placed between the washer of the screw and the neck of the bottle. Before attaching the valve to the bottle see that the sides of the slit are not adherent, otherwise the child may not be able to draw his food properly and the teat may collapse.

Owing to simplicity of construction, the bottle will never cause trouble, provided that the valve and teat are properly treated, and replaced when they become worn or damaged. The most satisfactory method is to have two bottles for alternate use.

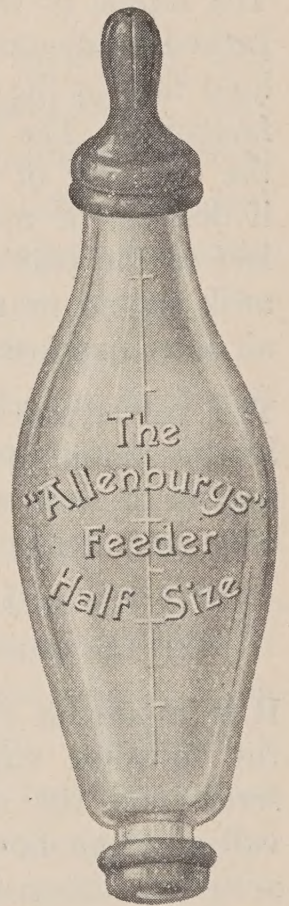


Capacity 4 fluid ounces or 8 tablespoonfuls.

For all young hand-fed infants this Half-Size bottle provides a convenience that will be appreciated by mothers and nurses. The capacity of the bottle is 4 fluid ounces (8 tablespoonfuls) whereas the ordinary "Allenburys" Feeder holds 8 fluid ounces (16 tablespoonfuls). The Half-Size bottle was introduced some years ago to fill a want long felt by mothers and nurses in feeding premature or very small infants. Although this was the primary object of its introduction, the Half-Size bottle can with advantage be used for most infants up to the age of $2\frac{1}{2}$ to 3 months.

The teat supplied with this bottle is called the "Allenburys" teat, small size, and has a fine hole. It can also be supplied on request cut with an ordinary or "one hole." The valve of this feeder is identical with that on the ordinary bottle.

This small bottle will also be found useful for giving the frequent sips of cold boiled water which are so welcome to the infant, especially during the period of teething (see paragraphs 72 and 73).



For the quantities of food and hours of feeding reference should be made to paragraphs 31 to 34. From these it will be seen that for most normal babies the "three hourly and no night feed" method is usually recommended, but in the case of premature, small and delicate infants it is often found best to make use of one of the modifications of the ordinary procedure, as fully set out in paragraph 34.

Bottles in use should be kept in a basin of clean cold water, with the valves and teats removed. *Immediately after the bottle has been used* it should be scoured first under the cold water tap and then under the hot water tap (*see illustration*).

To cleanse the bottles, liquid-food measures and dry-powder gauges efficiently and without fear of undue breakage, after scouring they may be placed in a vessel containing water of a temperature not exceeding 150° F., and kept there at that temperature for half-an-hour or so, after which they should be allowed to cool off, either in the same vessel or in the air, the bottles afterwards being placed in a basin of cold water. If the "Allenburys" bottles are used and these precautions are faithfully observed, there is no more necessity to boil the bottles than to boil the plates and dishes on which baby's food is prepared and served at the age of one year—scrupulous care and cleanliness are the essentials. When the temperature of the water is allowed to exceed 150° F. the glass is liable to crack. Moreover, constant boiling causes the glass to become brittle so that the slightest knock may cause cracks or breakages.

46. The "Allenburys" teats are supplied with perforations of two

The "Allenburys" Teats and Valves distinct types and with different numbers of holes to suit the requirements of any child. The ordinary "one hole" teats are suitable for the great majority of infants and are enclosed with each complete feeder.

The following varieties can always be supplied :—

One Hole (fine)	}	FOR USE WITH
„ „ (ordinary)		Milk Food or Milk and Water
One Leech Bite	...	Thin Food or Milk
Three Leech Bites	...	Food of medium thickness
Five Leech Bites	...	Thick Food

Special teats perforated with 2, 3, 4 and 5 ordinary holes, and 2 and 4 leech bites, as well as “blind” teats with no holes, can be supplied, but must be specially ordered through chemists, as only the range enumerated above is ordinarily stocked by them.

If the holes should tend to become partially closed it is best to repierce them with a small red-hot needle, taking great care not to make them too large.

After exposure to a cold temperature the teats and valves are sometimes found to have become hard and opaque. They will however quickly regain their resiliency and transparency if stood for an hour or two in a warm place, such as near a radiator or fire or above the kitchen range. They can subsequently be placed in hot water for a few minutes.

To preserve the teats and valves in good condition for a reasonable time they should be thoroughly washed *immediately* after use. On no account

**Cleansing of the
Teats and Valves** must they be left in contact with the food or milk, because the fat contained in either quickly acts upon the rubber, causing the teat or valve to enlarge and become soft and useless in a short time. Experience has shown that the following method of cleansing gives the best results :—

On removing the teat and valve from the bottle rinse them under the cold water tap; then put a pinch of salt inside each and rub them for a short time between the finger

and thumb. Afterwards turn them inside out and rinse thoroughly again, this time under the hot water tap. Any excess water is then shaken off and the cleansed articles should be placed in a clean saucer, with a cup inverted over them. If these precautions are properly observed there is *no necessity whatever to boil* the teats or valves.

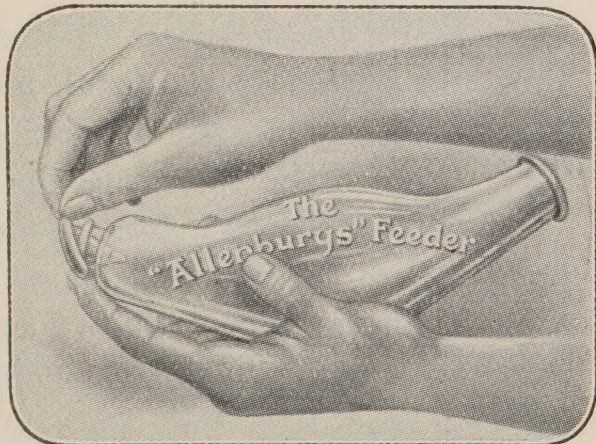
The correct method of attaching the “Allenburys” Teat.



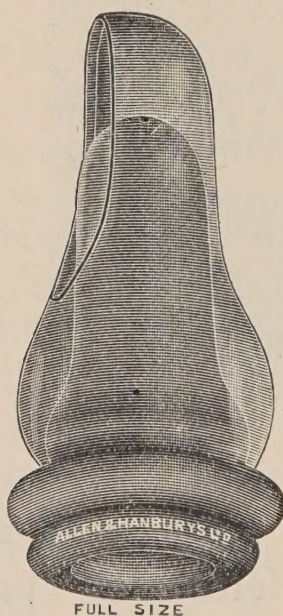
The “Allenburys” Teat is easily attached if the neck of the feeder is first wetted. The collar of the teat should be securely held by the left forefinger under the projecting rim of the neck of the feeder ; then stretch the teat over the neck so that it is secured in position by the projecting rim.

The correct method of attaching the “Allenburys” Valve.

The “Allenburys” Valve is easily attached if the smaller end of the feeder is first wetted. The valve should be held so that the projecting portion enters the neck of the feeder. Securely hold the collar of the valve underneath the projecting rim of the feeder neck, then stretch the valve collar over the neck so that it is secured in position by means of the projecting rim.



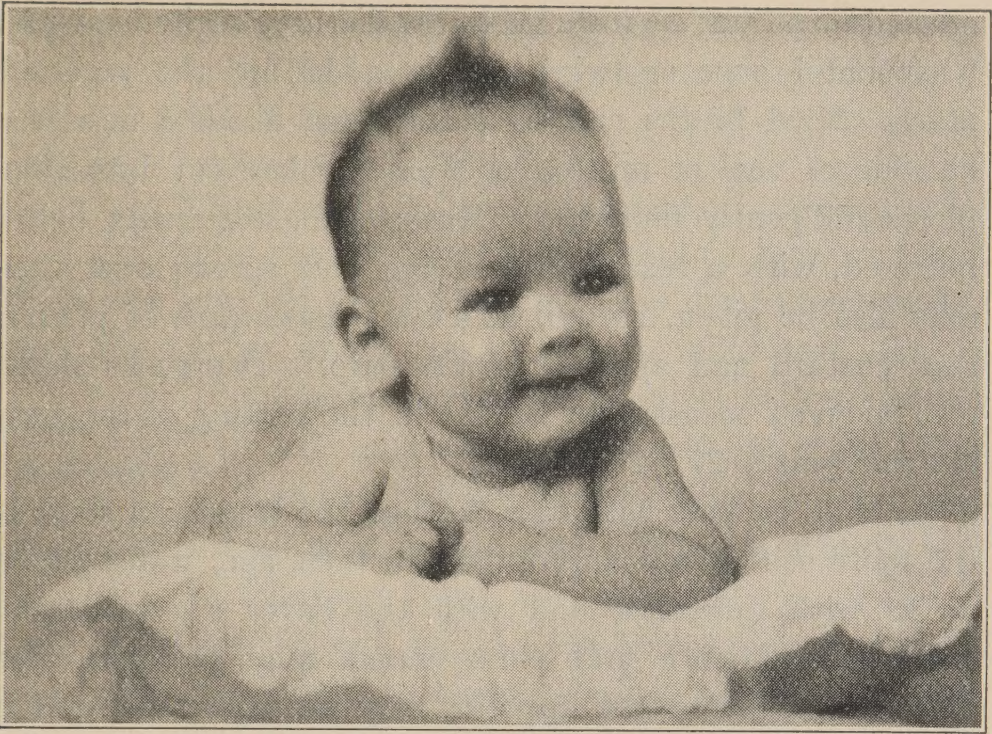
For the use of infants suffering from cleft palate we supply a special teat, as illustrated below. This is in the form of a shield which should be pulled on over the bottle teat so as to leave the rim of the latter still visible. The shield is intended to replace the missing portions of the palate and thus to prevent, as far as possible, access of the food to the nasal cavity. Greater care than ever must of course be taken in feeding infants with cleft palate and hare lip (*see paragraph 32*). Ordinary one hole teats are supplied with the shield, but the latter can be used on teats with other perforations if desired.



Feeding during and after Weaning.

47. From the beginning of the 8th month onwards the gradual process of weaning, either from the breast or bottle, usually starts to take place with most babies. Formerly it was customary to prolong both breast-feeding, and artificial feeding on some form of milk or milk mixture alone, up to the age of nine months, and this practice was doubtless not infrequently the cause of infantile anæmia and other forms of ill-health which sometimes developed later. In the case of breast-feeding,

**From 7 to
12 months**



Baby Pamela. Age 4 months

maternal milk is often deficient in the mineral salts of iron and calcium, more especially towards the end of lactation, when the mother's supplies of these have become depleted. In anæmia the "Allenburys" Beef Juice is particularly valuable, and in any case it can be given with advantage from the age of 6 months upwards in gradually increasing quantities, suitably diluted with warm or cold water (*see paragraphs 24 to 26 and 50*).

During the 7th month therefore, and even earlier in some cases, it is as well to begin to supplement or replace one meal a day, preferably the 2 p.m. feed, with small quantities of easily digested cereals and broths, such as ground rice, cream of rice, cream of wheat, and broths made from vegetables, which have been steamed for 20 minutes and then pulped and strained.

By the 9th month or sooner, feeding bottles should be a thing of the past and the child should be fed from a cup and spoon, other feeds gradually being replaced by the semi-solid articles. During the 10th month small quantities of finely

minced meat may be included in the dietary, beginning with a teaspoonful once or twice weekly added to the vegetable broth. Meat broths can be made from about 5 ounces of knuckle of veal or mutton or from chicken cut into small pieces and gently simmered. Rusks or toasted crusts, lightly buttered, with a teaspoonful of egg yolk spread over them may also be given, as well as a few teaspoonfuls of plain or rusk custard and apple or prune pulp. Dry rusks should also be given occasionally to aid in the cutting of the teeth (*see paragraphs 27, 72 and 73*).

Some children pass with ease through the transition stage to the more solid foods appropriate to their age, whilst others do so with difficulty, and with the latter a considerable degree of patience and perseverance may be called for. During this period the appetite may be capricious, and in any case it is impossible to lay down hard and fast rules to suit all children in regard to the dietary, which must be arranged with discretion. A little experience will soon show what foods suit each child best.

The following suggested dietary may be found helpful as a general guide from the age of ten months :—

- 6 a.m. Malted Food No. 3, 8 to 10 oz.
- 8 a.m. 3-4 teaspoonfuls of fresh orange or tomato juice
or
12 noon suitably diluted and sweetened.
- 10 a.m. Porridge or other cereal preparation, 1½ oz.
Slice of crisp toast fried in bacon fat, two or three mornings a week, alternating with hard-baked bread and butter, or an "Allenburys" Rusk buttered.
Milk, 7 oz., including what is used for the cereal.
- 2 p.m. Steamed white fish, ½-1 oz., or half a lightly boiled egg mixed with a few breadcrumbs.
A little puree of green vegetables and soup, gravy, or "Allenburys" Beef Juice.
Milk pudding, such as cream of rice, etc., 1 oz., with 4 oz. of milk.

6 p.m. Porridge or cereal jelly, $1\frac{1}{2}$ oz.
An "Allenburys" Rusk, with or without butter.
Malted Food No. 3, 7 oz.

10 p.m. "Allenburys" Diet, 5 oz.

Whenever the child seems thirsty, a little cold boiled water may be given with advantage between meals.

48. When one year old the child should have five to four meals a day ; the age at which the 10 o'clock night feed can be

**From 12 to
18 months**

omitted varies greatly, some children thriving well and being content without it even from as early as the seventh month, so that each

case must be dealt with on its merits. When four meals only are given the following hours are suggested, viz.: 7 and 11 a.m., and 3 and 7 p.m. By 15 to 18 months the number of meals may be reduced to three principal ones by gradually dropping either the first or last feed and re-arranging the hours. Children of this age should be trained to satisfy their appetites at the three chief meals—breakfast, dinner and supper ; light snacks or fruit, with second helpings forbidden, may be allowed midway between breakfast and dinner, and dinner and supper. At the three chief meals the child may be permitted to eat his fill within reason ; if the dietary is well balanced and of a sufficiently mixed character, his appetite will in most cases constitute the most reliable index of his food needs ; it is important however to remember that the optimum food intake is the minimum required for healthy development. Supper should be given about 6.30 p.m., as experience has shown that the child, who is put to bed with his appetite satisfied, generally speaking enjoys sounder sleep than the child who is sent to bed hungry.

The "Allenburys" Malted Food No. 3, Diet and Rusks may still constitute important items of the dietary, the No 3 Food being made thick (*see paragraph 40*) and the child fed with it from a cup and spoon. Additional food is provided by porridge, bread and milk, bread and butter, mashed potato

and gravy, the "Allenburys" Beef Juice, increased quantities of finely minced meat or chicken, fish lightly steamed, milk puddings, blanc mange, custard or rusk puddings, egg lightly boiled (two minutes) and stewed fruit. All fruit containing seeds should be strained through muslin.

Green vegetables should form an increasing part of the daily dietary, and they are rich in vitamins. They should therefore be lightly cooked, preferably by steaming for about 20 minutes only, because prolonged or slow cooking by boiling destroys or impairs the vitamins, and so often a large proportion of the valuable mineral salts are lost to the child by being thrown away in the water used for boiling the vegetables. The importance attached to their regular use for growing children is well illustrated by the words of an eminent medical officer of schools to those in charge of the pupils—"Regard a failure of your green vegetable supply in much the same light as you would regard a failure of your water supply."

A little milk should be preferred to water as drink at meals, but water should be given freely between meals. The young child possesses a comparatively small capacity for food; to fill up its stomach with milk means that there will not be room for the more solid vitamin and salt-rich foods required at this stage for healthy growth and development. Therefore the milk ration should be reduced as the proportion of more solid foods is increased. It is essential that the dietary should be varied for two good reasons, viz.: (1) Monotony is fatal to appetite. (2) By giving a wide range of foods an ample supply of the different vitamins is assured.

49. The cutting of the canine, or "eye teeth," at about 18 months (*see paragraphs 72 and 73*), is a sign that an increase in the more solid elements of the dietary can now be made both in quantity and consistence. For instance a medium size raw apple, peeled and cored, may be given occasionally; small pieces of raw apple at the end of a meal

**From
18 months
upwards**

will help to keep the child's mouth and teeth clean. Well-cooked suet puddings may also be introduced and these can be sweetened with dextrose in place of ordinary sugar. It is best that the meat and poultry should still be minced, otherwise the child may swallow larger pieces than is desirable and these are apt to cause indigestion. The minced meat, chicken or lightly-steamed fish can be mixed with bread-crumbs or mashed potatoes, with plenty of natural gravy. Underdone home-killed meat of good quality, finely shredded, the "Allenburys" Beef Juice and "Bynotone" are all to be specially recommended for pale and weakly children, and where there is any anæmia half to one teaspoonful doses of "Byno" Hæmoglobin will be found very beneficial. In other respects continue to feed as from 12 to 18 months.

Again it should be remembered that during the whole of the teething period the "Allenburys" Rusks are especially valuable in developing the child's jaws, powers of mastication and good sound teeth (*see paragraph 27*).

Sweetmeats, ginger-bread, rich cakes and buns, so indiscriminately given to children at all hours of the day, should be avoided. The members of a sweet-eating family are generally pasty, pale, and unhealthy in appearance. At the age of two years the "Allenburys" Milk-Cocoa and Breakfast Food may be given, and these form useful, convenient and palatable additions to the child's diet (*see paragraphs 29 and 30*).

The following suggested dietary for children from one to two years of age may also be found helpful as a general guide :—

On waking.	Malted Food No. 3, 5 oz.
Breakfast,	Porridge or other cereal preparation, 2 oz.
8-8.30 a.m.	A slice of crisp toast fried in bacon fat on alternate days with lightly boiled egg.
	A piece of hard-baked bread and butter, or "Allenburys" Rusks.
	Milk, 7 oz.

During the morning.	1-2 tablespoonfuls or more of fresh orange or tomato juice should be given, suitably diluted and sweetened. In some cases it will be found best to give the fruit juices on waking in place of the Malted Food No. 3, and sometimes more than once a day (<i>see paragraph 25</i>).
Dinner, 12.30-1 p.m.	Finely-minced meat, brains, tripe, chicken or steamed white fish, 1 oz., with a little potato and puree of green vegetables, and soup, gravy or "Allenburys" Beef Juice. Milk pudding, custard or junket, 2 oz., with stewed fruit, apple or prunes, or a raw apple occasionally. A drink of water.
Tea, 4.30-5 p.m.	Porridge or other cereal preparation, 1 oz. Hard-baked crust or Rusks with a little honey, syrup or seedless jam. A small piece of "Allenburys" Milk-Food Chocolate (<i>see paragraph 28</i>). Sponge cake or plain Madeira cake. Milk, 7 oz., including what is used for the cereal. From half to one teaspoonful of "Bynotone" may with advantage be added to the milk, if cold or not exceeding 100° F.
Supper, 6.30 p.m.	At 6.30 p.m., or later in some cases, 6 to 8 oz. of "Allenburys" Diet may be given, with or without a Rusk. The Diet will usually ensure a restful night (<i>see paragraph 53</i>).
If the child is thirsty, a drink of cold boiled water may always be given between meals.	

50. The "Allenburys" Beef Juice is prepared by a special process from uncooked prime beef, and one fluid ounce of the Beef Juice contains the nutrient juice or extractive matters from $5\frac{1}{4}$ lbs. of beef. It thus takes the place of raw meat juice.

In cases where it is impossible to administer any form of milk, the Beef Juice should be given in preference to beef tea or broth; beef tea is merely a stimulant, it contains no nutriment. The Beef Juice may be mixed with the food when this is at the right temperature to be given to the child, *viz.*, 100° F. (*see paragraph 35*), or it may be diluted with a little warm or cold water to suit the child's taste, or it may be poured over mashed potato or bread crumb. A suitable amount for infants from 6 to 12 months is half to one teaspoonful, and for older children up to two teaspoonfuls daily. In cases of anæmia and wasting it may be advisable to increase the frequency of administration to two or three times a day.

The Beef Juice is not only nutritious and readily assimilable, but it is a very valuable stimulant in both acute illness and convalescence. It gives that impetus to the system which is so necessary at critical stages of disease, and often will hasten on a hitherto obstinately protracted convalescence. As regards the keeping properties after a bottle has been opened, the Beef Juice should be stored under favourable conditions, that is in a cool, dark place and the cap tightly closed after each time of using, when it will remain in good condition for at least three weeks, provided that the bottle is in continuous use; it is essential, however, that the above precautions should be observed. If the Beef Juice is not in continuous use, to obviate any waste, adults can use up the remainder of any bottle, as the product will be found to be both palatable and appetising. If possible keep the bottle in an ice safe, failing that, in the larder.

Sickness and Convalescence in Infancy.

51. When an infant of six months of age or over is unable to retain and digest the simplest form of milk food, it becomes necessary to find some substitute which can be readily taken and assimilated. By employing the "Allenburys" Diet (a partially predigested milk and wheaten food) in such cases, not only is predigested milk given, but with it a proper proportion of

*The
"Allenburys"
Diet for all
Digestive
Disorders*

converted farinaceous food, which at this age is necessary for the child's maintenance. Such predigested milk cannot form the dense curd in the stomach that is found with raw or diluted cow's milk and other forms of milk.

In the majority of disorders of digestion in infants who are over six months of age, the "Allenburys" Diet should form the principal article of food. In acute affections, where digestion is deranged, the loss of weight and strength often associated with other forms of feeding is obviated by the administration of the Diet.

In exceptional cases the "Allenburys" Diet can be given for short periods to children as young as two months of age. Considerable experience has shown that, even for such young babies, its use for two or three days or longer has successfully tided over periods of digestive disturbance, when all other expedients have failed. As the infant's condition improves a gradual return to its usual food should be made, beginning with say one bottle a day, carefully noting the effect and gradually replacing the Diet altogether, with the exception perhaps of the last meal at night (*see paragraph 53*). Generally speaking, although infants and young children may apparently thrive well on predigested and partially predigested foods, when the children are in normal health again such foods are liable not to give their digestive organs sufficient exercise to promote proper development of the functions of those organs. Accordingly their use as the sole or main food should not be continued indefinitely.

In the following table will be found the quantities of food powder necessary to make up different quantities of prepared food mentioned in the Time and Quantity Tables in paragraph 33. Any intermediate quantities can be readily calculated from these figures. In some cases it may be found desirable to reduce the quantity and/or the strength of the food.

To make	Quantity of Powder*	To make	Quantity of Powder
1 fluid ounce	$\frac{2}{3}$ measureful	5 fluid ounces	$3\frac{1}{3}$ measurefuls
2 " ounces	$1\frac{1}{3}$ measurefuls	6 " "	4 " (1 oz. weight)
3 " "	2 "	7 " "	$4\frac{2}{3}$ "
4 " "	$2\frac{2}{3}$ "	8 " "	$5\frac{1}{3}$ "

One level measureful equals 2 "parts" of the glass Powder Gauge.

To prepare the Diet for use measure out the requisite quantity of dry food by the measure or in the powder gauge, then tip it into the "Allenburys" or other liquid food measure; add a small quantity of boiling water and mix to a smooth paste, then add more boiling water up to the required quantity of prepared food. The temperature of the food should never exceed 100° F. when given to the infant (*see paragraph 35*).

52. In convalescence the "Allenburys" Diet is most useful for infants over six months of age, as it helps to re-establish the normal digestive functions without giving rise to colic and wind. Infants who, during convalescence, do not regain their proper weight, rapidly improve when the

Convalescence "Allenburys" Diet forms the chief meals. The ease with which this food is assimilated and the consequent rest to the digestive organs soon make it possible to re-introduce some of the usual articles of food, as the recuperative powers of the child allow.

53. Infants, otherwise healthy, who are restless and wakeful at night, often benefit if the easily-digested "Allenburys"

Wakefulness Diet is given at bedtime instead of their usual food. Restlessness is often due to indigestion caused by the last meal of the day, and wakefulness to hunger, when the last meal is given early because it cannot be digested at bedtime. The "Allenburys" Diet is an excellent last meal for all young children over the age of six months, and there need be no hesitation in continuing its use indefinitely for this meal. After the age of one year the Diet may be prepared as for adult use, in accordance with the directions on the tin.

54. Parents who are compelled to take their infants with them on voyages will find the "Allenburys" Diet invaluable (*see also paragraph 41*). If their children are
- On Voyages** over six months of age, the Diet should be given for the last meal at night, and during any periods of digestive disturbance or of sea-sickness. For younger babies the "Allenburys" Milk Foods Nos. 1 and 2 are usually amply

sufficient. In sea-sickness the Diet is often the only food that can be retained and assimilated, and in preparing it for use the quantity of boiling water may with advantage be reduced, even to half the usual amount. The keeping qualities of these products are a great recommendation.

55. In infant feeding the points of cardinal importance are *quality, quantity, temperature, time and method*. A healthy infant, fed according to the directions given on the preceding pages, ought to thrive well. Nevertheless it should always be remembered that there is no method of feeding, however perfect, so good as that provided by nature itself, unless, of course, the mother's milk is deficient in quality or quantity. If the mother has not sufficient

Weaning

milk, the "Allenburys" Milk Food No. 1 may safely be used in conjunction with the breast, and no fear need be entertained about their disagreeing.

Either of the following methods may be used :—

- (1) Alternate feeds of each may be given, beginning with one bottle a day and proceeding until in due course breast feeding is entirely eliminated. A good plan is to try dropping one breast feed every six days and substituting bottles of No. 1 Milk Food until gradually all the breast feeds have been dropped ; the last breast feed to be discontinued should be the early morning meal, as the infant usually receives more nourishment at this feed than from any of the others.
- (2) The Milk Food No. 1 may be used to supplement the breast feed at the same meal, the only difficulty being that of judging how much Milk Food to give after the breast. Short of accurate weighing of the infant before and after the breast feed, as carried out in some institutions, one can only rely on discretion and experience.

By either method the usually dreaded process of weaning takes place comfortably and gradually. The mother is, on

the one hand, not overtaxed by excessive demands at a time when her milk is naturally becoming scarce and poor, nor is she distressed by the cries of her baby and the tenderness of her breasts, as so often happens if weaning be suddenly adopted. It is a popular superstition that artificial and natural feeding disagree owing to the mixture. The disagreement generally is not between the foods, but between the unsuitable, artificial food and the child's stomach. During spells of very hot weather or if the infant is suffering from any acute illness it is often advisable to postpone weaning.

Although in the past it has been customary for the Milk Food No. 1 to be used in this way until baby is entirely weaned, later experience has shown that strong children will often make even better progress on the Milk Food No. 2 and Malted Food No. 3 given alternatively with the breast either at the proper ages for those foods, or at a month or two later than the usual periods for changing (*see paragraph 19*).

56. Breast feeding should seldom, if ever, be carried on after the end of the ninth month (*see paragraph 47*),

Breast Feeding;
when to cease or after a weight of 15 lbs. has been attained.

When weaning takes place at this period the "Allenburys" Malted Food No. 3 may be given.

57. It should not be forgotten that infants, particularly those that are bottle fed, are often thirsty, especially in hot

Thirst weather. A little cold water, previously boiled, given occasionally between the meals will often

prevent fretting and be very grateful to the child. During teething, when the mouth is hot and dry, and there is sometimes a rise of temperature, a drink of water should not be forgotten, and in acute fevers it is again very necessary. The "Allenburys" Half-Size Feeder is a convenient means of giving water to a young infant (*see paragraph 45*). Water should be given frequently in hot weather, provided that the child is not overheated through exercise.



Baby Margaret. Age 16 months

58. Weight and Height Table of Nude Infants.

Age				Weight	Height
At birth	...	...	...	7 lbs.	19 inches
At end of 1 month			...	8 "	20 "
"	2 months		...	9 $\frac{1}{2}$ "	
"	3 "		...	11 "	23 "
"	4 "		...	12 $\frac{1}{2}$ "	
"	5 "		...	14 "	
"	6 "		...	15 $\frac{1}{2}$ "	26 "
"	7 "		...	16 $\frac{3}{4}$ "	
"	8 "		...	18 "	28 "
"	9 "		...	19 "	
"	10 "		...	20 "	30 "
"	11 "		...	21 "	
"	12 "		...	22 "	31 "

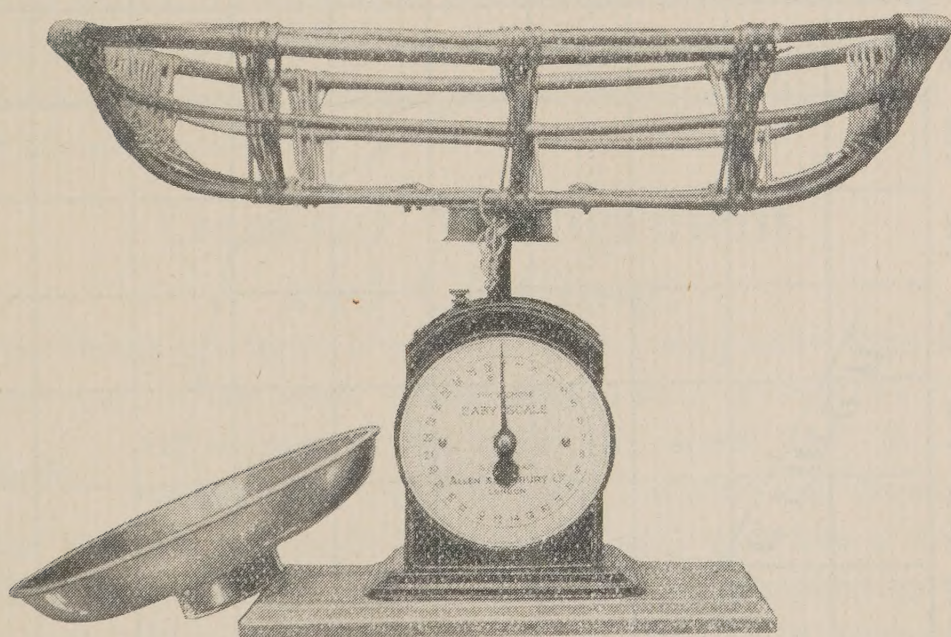
The above weights are given on the assumption that the child weighs 7 lbs. at birth, and shows about the normal increase that may be expected in a healthy child.

In the first week of life there is generally but little, if any, increase, and often a slight decrease in weight may take place. The table only gives an approximate guide as to increase, for perfectly healthy children vary considerably in development ; thus, in a family where all the members

are large of bone and fully developed, the increase in the child's weight will probably be more rapid than if coming of small-framed parents. It should be remembered that as a general rule feeding should be according to weight rather than to age (*see paragraph 33*).

It is very important to have baby weighed at regular intervals to ascertain whether he is thriving satisfactorily. It is best to do this on the same day every week, and to keep a careful record. For this purpose the "Allenburys" Weight Charts will be found useful. A copy is printed on the next page: loose copies can be had on application. Baby should gain from four to eight ounces weekly during the first year. The "Wigmore" Baby Scale provides an easy and safe means of weighing baby, and ensures accurate records.

The "Wigmore" Baby Scale.



The "Wigmore" Baby Scale (Regd. No. 543,427), is designed to register weights up to 28 lbs. by gradations of 2 ozs. It has a wicker basket, 23 ins. by 12½ ins., and a metal scale pan.

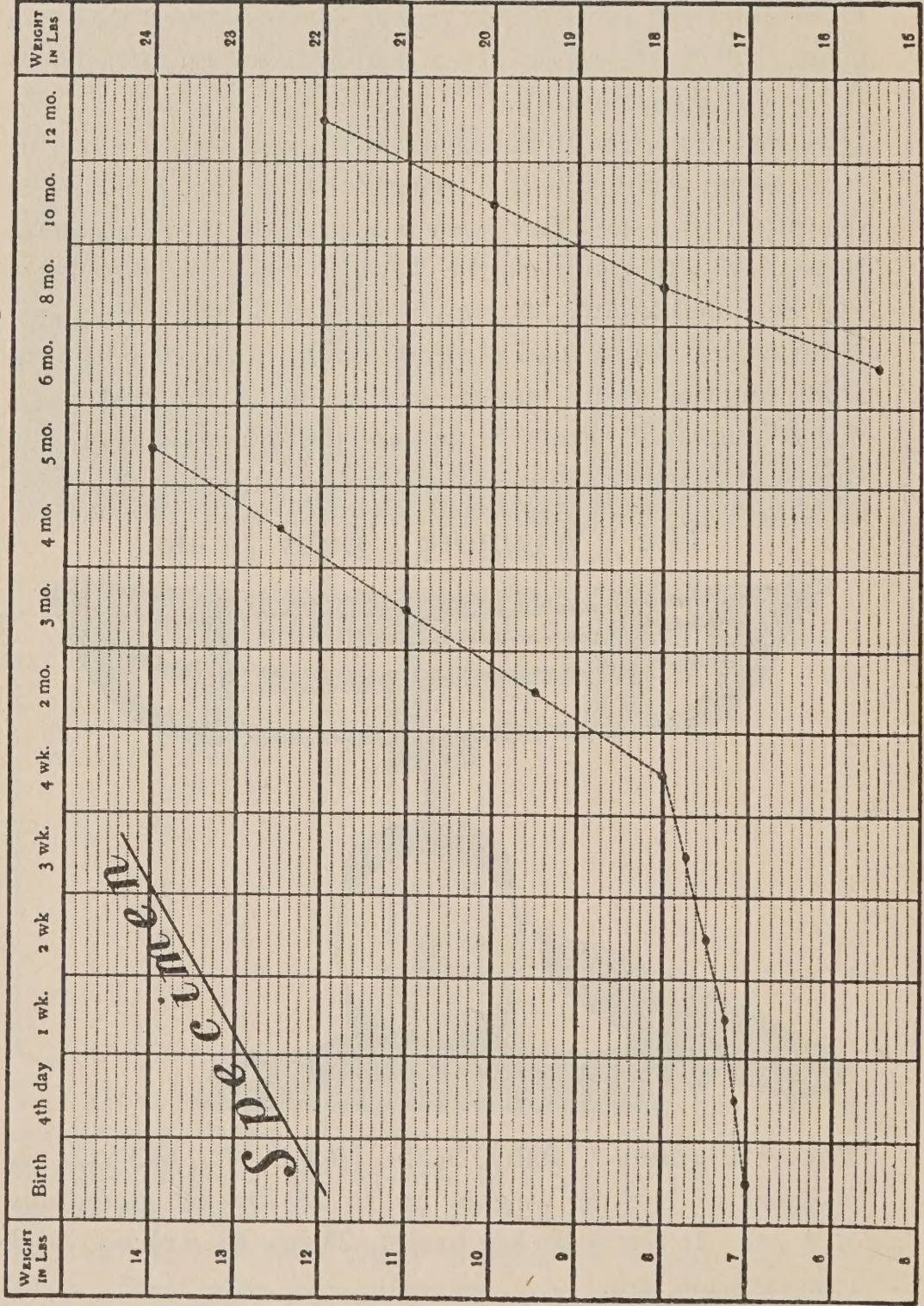
The wicker cradle, securely fixed by a locking pin, is deep enough to hold an infant safely and comfortably. To ensure

INFANT'S WEIGHT CHART

Name _____

Date of Birth _____

Always weigh at the same time every week and just after feeding.



The black lines indicate the weight in lbs., and the dotted lines every 2 ozs. Light diagonal lines show the method of using the chart, and indicate the normal weight of an average child.

accuracy the infant should be placed in the centre of the basket. The broad base makes it impossible for the scale to be upset when in use.

If the room is warm it is best to weigh the infant without clothes, but by means of the adjusting screw the weight of any covering used may be allowed for. Always weigh at the same time every week and just after feeding.

The metal scale pan can at any time be substituted for the cradle, and the balance used for ordinary household purposes. If desired, particulars of a more elaborate and expensive type of scales may be had on application.

With a child above the average weight extra care is necessary to see that he does nothing to strain himself. Before the end

Walking of the ninth month he should not be allowed to sit up without adequate support; the average child begins to crawl about the eleventh month and to walk early in the second year, and it is always best not to attempt to teach an infant to walk, but to allow the child to do this of his own accord.

General Management and Clothing.

59. Few things are more important for a young baby than its daily bath. The water should always be a little above the

Baths temperature of the skin, *i.e.*, about 100° F. If warmer than this it weakens the child and disposes him to catch cold easily; if colder it may give him a chill. As it is extremely difficult to gauge the temperature of a bath merely by immersion of the hand, it is advisable to use a properly graduated thermometer. To a cold hand a warm bath may seem quite hot, and an error of 10° or 15° F. may easily be made, to the great detriment of the infant.

A thermometer which shall be available for all purposes is a great convenience in the nursery, for taking the

temperature of (i) **The Nursery**, (ii) **The Infant's Bath**, (iii) **The Infant's Food**. The "**Allenburys**" Thermometer is accurate, convenient and portable (*see paragraph 35*). The bath must never be given immediately after food. The child should be washed, then fed and put to sleep. A healthy infant ought to have a bath in the morning as well as in the evening. The reason is obvious, for the pores of the skin cannot act in a natural manner unless they are clean and free from impurities.

It is most important that a thoroughly reliable soap should be used, which is free from excess of alkali, silicate of soda, resin, or of anything that may injure the delicate **Baby Soap** skin of a young infant ; the best for this purpose is the "**Allenburys**" **Baby Soap**, which is made from pure edible fats, is emollient and delicately perfumed, and keeps the skin soft, supple and healthy.

60. One of baby's napkins or a thick Turkish towel should be folded in half and placed in the bottom of the bath so that it hangs over one end, to protect the child's head and body from being bruised or knocked. While lying on the nurse's lap the child should be soaped all over the body with the hand or a very soft piece of flannel, and should then be placed in the bath. To prevent the child from **Washing** slipping while in the bath, the mother or nurse can wear on the left hand a long glove or mitten reaching to the elbow, and made of Turkish towelling or soft flannel. It is best not to use soap on the head, except about once a fortnight. The eyes and nose should be carefully cleansed at each washing time. For the eyes it is best to use boracic acid solution (strength 8 grs. to the oz.), applying a few drops with a pledget of cotton wool ; the nose can be cleansed in the same manner by twisting the pledget round in the nostrils, either plain water, boracic acid solution or "**Chrismol**" being used, and vaseline afterwards if the child has a cold.

After washing the ears, they can with advantage be cleansed from time to time with cotton wool dipped in "Chrismol." The oil tends to soften any accumulation of wax and thus facilitates its removal; but in attending to the ears great care must be taken not to injure the delicate and sensitive drum. When anything unusual is noticed, such as a discharge from the ears, medical advice should be sought.

61. After thoroughly rinsing his body, when the child is taken from the bath it is best to put him face downwards on the lap. He is then covered with a soft towel, and first the head is dried and then the back and legs. The drying should be carried out by gentle patting with soft towels, one towel being used for the head, and another for the body.

The greatest possible care must be taken over the drying of the baby. Every little fold and crease of the skin must be carefully wiped, special attention being paid to the neck, behind the ears, under the arms and between the legs. Each finger and toe must be wiped separately.

62. To absorb any moisture that may possibly be left, and to prevent any rubbing of the skin, the parts of the body where friction is likely to take place should be lightly powdered. It is of great importance that a good powder should be used, or harm may be done to a baby's delicate skin, and therefore to his health. The "Allenburys" Baby Powder may be thoroughly relied on, being perfectly free from all deleterious ingredients and highly beneficial to the skin.

The back should be lightly powdered, and then the chest and stomach, particular attention being paid to all the deep folds of the skin. The use of much powder may interfere with the natural evaporation through the skin and should therefore be avoided.

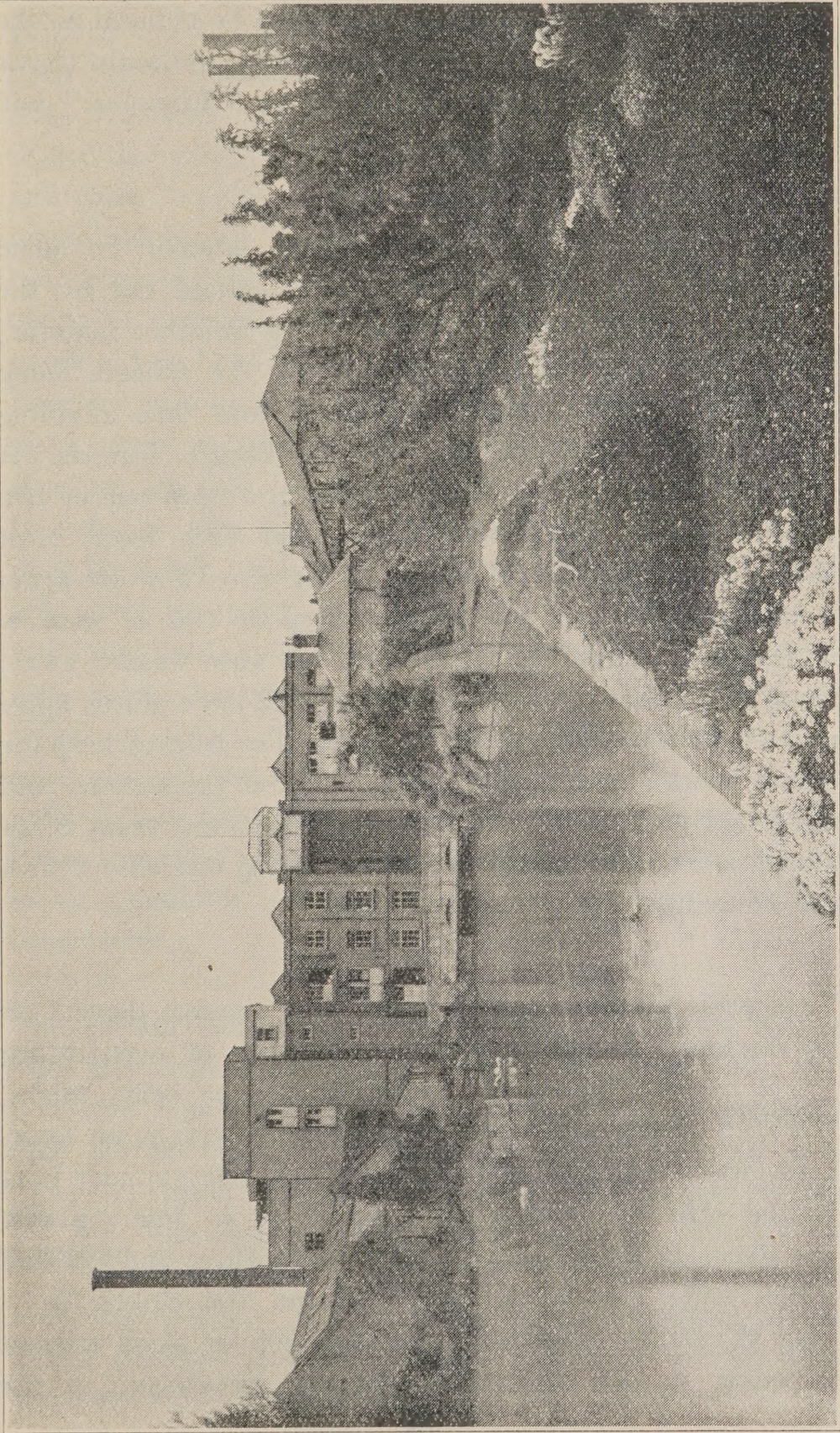
For some children, especially those with a tendency to dry skin, the use of a cream instead of a powder is sometimes desirable. For this purpose the "Allenburys" Baby Cream will be found excellent ; it is a soothing and emollient cream with a delicate perfume, and is supplied in tubes.

If the skin between the legs should become chafed, as may happen even when the greatest care is taken, frequent applications of "Allenburys" Baby Cream should be made. This possesses healing properties which soothe and remove irritation.

*Irritation
of the Skin*

The "Allenburys" Baby Powder or Baby Cream should be applied whenever napkins are changed, or the parts are washed.

63. Occasionally infants suffer from a dryness of the scalp with the formation of scurf at the roots of the hairs, irritation and itching occurring in some children to a greater or less degree. In many cases the following procedure has been found effective in curing or alleviating the condition. With a long fine comb in the left hand raise the hair from the scalp and in each parting rub a small quantity of "Eumollia" into the skin and roots of the hair, using the first finger of the right hand for the purpose ; the nail should be short, otherwise any irritation present may be aggravated. When the whole scalp is affected this treatment should be carried out in partings about one inch apart or less, taking care to confine the "Eumollia" to the scalp as far as possible, so as to avoid making the hair itself greasy. Usually the scurf will come off on the finger, but if not and a small fine comb is used to help in removing it, the combing must be very gentle because an infant's scalp is sensitive, particularly when scurf or little spots are present. If the "Eumollia" is applied in the morning it should be washed off again at



Ware Mills from the Mill Tail

night with baby soap, or if applied in the evening *vice versa*. The frequency of the applications should be reduced as the condition clears up. Afterwards whenever the scalp shows any sign of dryness one application of "Eumollia" will usually prevent the recurrence of scurf.

64. The cleansing of the mouth should always be done *immediately after each feed*. If this is carried out by the

**Prevention
of Thrush**

use of a piece of linen rag or other material, there is danger of injuring the delicate lining of the mouth and gums, and thus affording an opportunity of infection by the Thrush Fungus. A simple but effective method is to give the child one or two teaspoonfuls of cold boiled water after each feed. Most babies, being "satisfied," simply let the water flow out again from their mouths; but whether they do this or swallow it, the remnants of the feed are in any case washed away. From about the age of ten months a small piece of raw apple may be given after the water, as it will also help to keep the child's mouth sweet and clean. These precautions will altogether prevent the occurrence of thrush and many other ailments, if the feeding of the child is being carried out with the scrupulous care mentioned above.

65. To a great extent a baby's health and comfort depend on its clothing. Avoid the common mistake of overclothing

Clothing

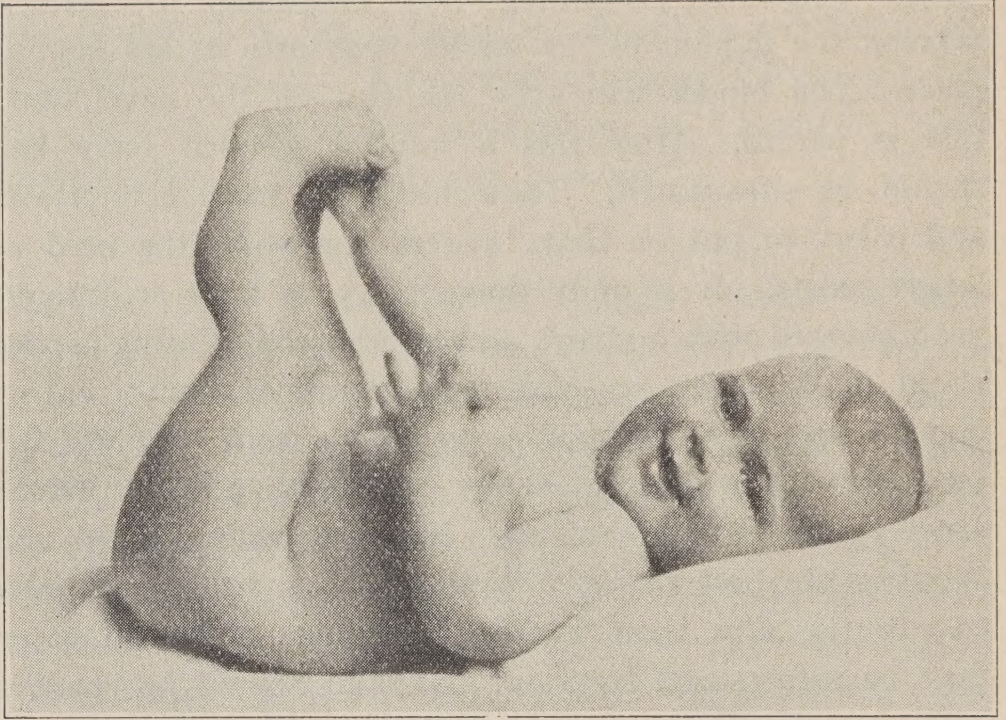
the chest and underclothing the belly, thighs, legs and arms. The clothing should be loose, light, warm and evenly distributed, and the garment next to the skin should invariably be of wool. For the first few weeks of life a flannel binder, about three and one-half inches wide, should be placed around the child's body. This should be sufficiently tight to keep in place without impeding in the slightest degree the movements of the

child's body, or preventing easy breathing. By safety-pinning the napkin to the binder both articles are kept in place. The binder will keep the pad on the navel, until this is healed. After this a knitted woollen body belt should be substituted. These belts are more comfortable and easier to put on than binders, for which the need no longer exists. It is quite unnecessary to keep an infant's head covered with a shawl, except when he is being carried about in draughty passages from room to room; out of doors a soft hood or bonnet should be worn that will not interfere with comfort when the baby is lying in the nurse's arms or in a perambulator. Napkins made of old soft sheeting are best for very young infants, being less liable to rub the skin than Turkish towelling, which, however, may be safely used later on. Napkins should be changed with great frequency, as it is cruelty to an infant to keep on anything that is not perfectly dry and unsoiled. Before being used again the napkins should be thoroughly washed and boiled in plenty of water, no soda being added and no soap which contains free soda being used; after which it is preferable to air them in the sun or wind for several hours, before the final airing and thorough drying in front of a fire or on a radiator. Carelessness in this important matter is inexcusable.

66. The knitted belt should never on any account be left off until the child is at least six months of age or older, and it should then be replaced by a knitted woollen vest, with long sleeves during the winter. A flannel pilch or large

**Short
Coating**

square flannel outer napkin must be put on over the napkin to protect the child's legs and stomach, which are more exposed to cold than when he is in long clothes. The feet should be kept warm by loosely fitting woollen socks or bootees, while for out of doors woollen overalls are recommended.



An "Allenburys" Baby. Age 9½ months

67. An adequate amount of sleep is important for everyone, but it is essential for young infants, if they are to be given a fair chance in life. During sleep not only is the body rested and recreated, but the brain and nervous system are quiescent and their source of energy is restored. The present tendency is undoubtedly to cut down the hours of sleep, and this is most unwise, because the child who has had a proper amount of sleep and rest during infancy and childhood, is later on likely to be brighter and more fitted for the stresses of modern life than the child whose parents have neglected to ensure this. The matter, however, is so important that it calls for firmness and a degree of parental control that is unfortunately often lacking. It should be remembered that as light is a stimulant to the brain and is a common cause of wakefulness it should be excluded as far as possible from the bedroom during the hours of sleep. The problem for each household is how best to do this without interfering with ventilation and the ingress of fresh air. During Summer Time this

difficulty is somewhat increased. There are two points on which parents should insist : (1) Regularity of the bedtime hour ; (2) That children under five years should have a rest in bed during the day as well, and it is better when possible to apply this rule until children are seven years of age or older. Though they may not sleep, they will at any rate be resting their bodies. The habit of sleeping during the day is not difficult for most children to acquire, if the conditions are made favourable, and the best rest time is after the midday meal. The practice of making children sit quietly for a quarter of an hour both before and after meals should be encouraged, because when they are allowed to run about and romp at these times their food is not likely to be so well digested and assimilated.

In the following table is given the *minimum* number of hours of sleep that are suggested as desirable for the average individual to obtain if possible during the 24 hours from birth onwards :—

Hours of Sleep.

Age Period.	Number of Hours.
Birth to 4 months	At least 20 hours
4 " 7 "	" 18 "
7 " 12 "	" 17 "
1 " 3 years	" 16 "
3 " 5 "	" 14 "
5 " 8 "	" 13 "
8 " 10 "	" 12 "
10 " 12 "	" 11 "
12 " 15 "	" 10 "
15 " 18 "	" 9 "
Above 18 "	" 8 "

When the child has been washed and dressed for the night in a similar set of clothes to those worn during the day (omitting, of course, the white petticoat and robe), he should have his evening meal and be put straight into his cot, without being carried about at all. In a few days he will learn that it is easier

*During
the Night*

to lie still and go to sleep quietly than to cry and make a fuss, though if he has at any previous time been accustomed to being carried about there will doubtless be a disturbance at first. It is better, for both the child and the mother, to make a stand early against this pernicious practice, for if begun it will have to be repeated when the child wakes during the night. After feeding at night he should always be put back into his cot directly, and not allowed to stay in his mother's bed, as it is bad for both mother and child.

68. The use of india-rubber "comforters" is much to be deprecated, for if a child is once accustomed to them it is exceedingly difficult to break him of the habit. The long-continued use of such "Comforters" may result in adenoids or some malformation of the mouth. Moreover, they are a fruitful source of wind and colic, and a common cause of infection of the mouth, stomach and bowel, so that serious and even fatal diseases, such as summer diarrhoea, may follow their use.

Just prior to and during the teething period a smooth piece of bone, of such a size that it cannot be swallowed, may be given to babies, provided that it is kept scrupulously clean.

69. The importance of fresh air for the young infant cannot be overstated, and there is no doubt that the healthiest children are those who, well wrapped up, spend the greater part of their early life out of doors. The child, unless very delicate and subject to bronchitis or croup, should be taken out every dry day, winter and summer, even though the wind is cold, and in suitable weather the perambulator should be placed in some sunny protected corner of the garden, verandah or balcony, and the infant allowed to sleep there in the open air, rather than in the atmosphere of the nursery. The head of a young baby should not be exposed to the direct

rays of the sun, and any strong light is both harmful and unpleasant to the child's eyes, therefore the position of the perambulator or cot must be selected with discretion, and the hood or canopy correctly adjusted. Except for protection from rain the hood should never be more than halfway up. This keeps off the wind but still allows free access of fresh air. The more fresh air the child has the hardier he becomes, and the more fortified to withstand the attacks of the usual infantile maladies. An "open-air" baby is not so likely to suffer from rickets and other infant ailments. It is quite possible to carry an infant so that the wind does not blow down his throat, by placing him with the back of his head as far as possible facing against the direction of the wind. When a child is delicate it may be unwise to take him out in a keen wind or in great cold; but this is a matter on which the advice of a medical man should be sought. Keeping the child indoors for a slight cold is a mistake which is frequently made by over-anxious mothers. When the air is damp and foggy, discretion should, of course, be used, but dry cold never does any harm to a properly clad healthy child. Children so brought up are hardier, stronger, and less liable to take cold. This method is sensible, but must not be confounded with the old idea of hardening a child by subjecting its uncovered limbs to cold and exposure. What is necessary is fresh air; what is harmful is the loss of heat through undue exposure of naked limbs. The effort which nature puts forth to replace this heat or energy involves a corresponding loss to the child.

The window of the nursery should be kept open night and day except in very bad and stormy weather; where the windows consist of leaded light casements, the provision of one movable little pane is most useful in stormy weather because the amount of fresh air that can be admitted through so small an opening is astonishing. In windy or

exposed positions it is always best to provide some form of ventilation to minimise any bad effects of having to keep the windows closed. The room should have a sunny aspect, and should be large and well warmed, for the young child, like the young plant, needs warmth and plenty of light and fresh air.

Minor Infant Ailments.

70. Every mother, especially the mother with her first baby, should remember that time is all important in the successful treatment of illness in infants. Many a time the doctor is called in *too late*, only to find that his visit is fruitless. It cannot be too strongly urged that the practice of mothers reading up popular literature on medical treatment and attempting to treat a case by fitting the text-book description to their own interpretation of the symptoms may end in hopeless disaster. The mother should be quick to notice symptoms, but experience, and experience alone, will teach her how to interpret them. It is not by any means the case that those children whom the doctor sees least often thrive the best, for a word or hint from him as regards management or illness may save many a grave mistake. Therefore, *do not hesitate to call in the doctor early.*
71. If shortly after birth the navel is still sore and unhealed after the usual boracic dressing, a piece of plain muslin should be soaked in "**Hazol**" or in a solution of "**Lysol**," "**A. & H.**" (half a teaspoonful to half a pint of water), wrung nearly dry, and applied. Over it put a little absorbent cotton wool, and then an india-rubber umbilicus belt with a pad. These belts are specially useful if the umbilicus protrudes at all, but medical advice should always be sought before using them in such cases. They must be kept clean, and should be powdered with the "**Allenburys**" Baby Powder, which is antiseptic.

72. **Teething** The milk teeth, or temporary set, appear generally in the following order :—

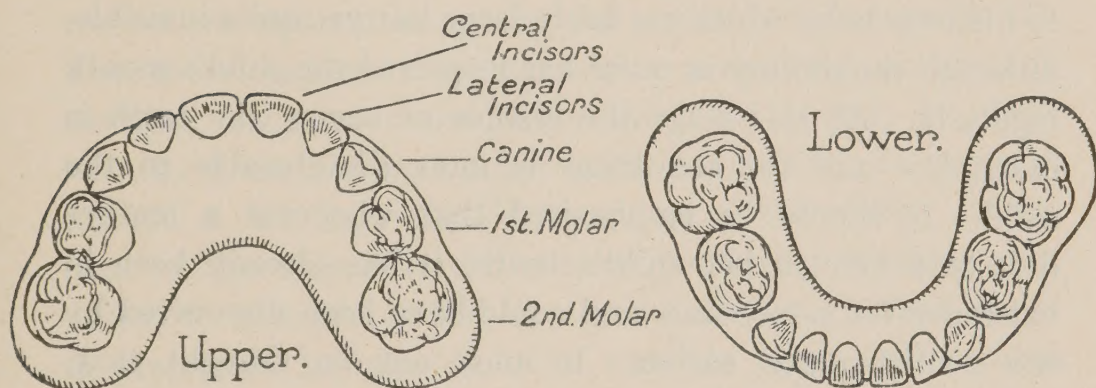
1st group—The two lower central incisors (front) 6th to 8th month.

2nd group—The four upper incisors at intervals 8th to 10th month. Interval of one to three months.

3rd group—The lower lateral incisors and upper and lower front molars (grinders) 12th to 14th month. Interval of two to three months.

4th group—Canines (eye teeth), upper ones usually first, 18th to 20th month.

5th group—Posterior molars (back grinders) 2 to 2½ years.



The upper and lower jaws of a child, showing complete set of temporary teeth.

At the onset of teething, infants, in default of anything better, begin to grind their gums together and the inclination should be encouraged by giving them a smooth bone to chew. Bones liable to splinter or that have been damaged should be avoided. Chewing assists the development of the muscles of mastication and thus helps to produce a strong, wide jaw, with plenty of room for the teeth.

After the age of six months an occasional rusk may be given to help teething, to stimulate the secretion of saliva and to give the infant opportunity to acquire the rudiments of mastication. When infants first begin to chew such articles

as rusks they should be carefully watched to prevent any possibility of choking. Rusks are not usually given as a regular article of diet until the age of ten months is reached, but some forward children may have them earlier (*see paragraph 27*).

It is a wise precaution to take a child for his first visit to the dentist at about the age of three years. It is probable that there will be nothing wrong, and the child, instead of being frightened, will enjoy his visit. If, later on, decay occurs, the child will be used to seeing the dentist and will be less likely to resent having a tooth stopped. Decay in the milk teeth often starts between the grinding teeth, where it is not at first visible. It is quite common for dentists to discover holes which are fairly large but yet quite invisible, although the mother or nurse has inspected the child's mouth regularly. At this stage the chance of saving the teeth is much less and the treatment is more disagreeable to the child. It should be emphasized that whenever a mother detects a hole in her child's tooth, it has already been in existence for some time, and could have been discovered by the dentist much earlier. It must not be thought that, because the first teeth are temporary ones, they are unimportant. If they decay and are lost before their time, this may cause irregularities of the second teeth. If an abscess or gum-boil forms from a decayed first tooth, it will frequently cause the glands in the neck to become enlarged and may damage the child's health. It is even more important for a child to be able to chew his food, than for an adult. Therefore every effort should be made to keep the first teeth healthy for their normal lifetime. Malformations of the jaws are common. These can be treated much more easily before the bones of the jaws are hardened, thus saving ill-health, trouble and expense in later life. *Early and regular visits to the dentist are an important way of insuring the health of the growing child.*

73. During teething a child's appetite generally falls off a little, but this need cause no anxiety. It is better for the child not to have his full meals then, as he is often inclined to be somewhat feverish. **Treatment** Little sips of cold water are much appreciated **During** by the baby during this time, as the gums **Teething** are apt to be hot and swollen. If the child cries and becomes restless during the night, a little drink of water will frequently quiet him, and he will drop off to sleep again comfortably. It is best to use cold water, which has been boiled, and this water should never be allowed to stand for many hours in the room. The "Allenburys" Half-size Feeder, which holds 8 tablespoonfuls, affords a convenient method of giving the water (*see paragraph 45*). The more serious ailments which sometimes accompany teething, such as convulsions, must, of course, be dealt with by a medical man; but until it is possible to summon his aid a hot bath should be given to the child. Looseness of the bowels sometimes occurs during teething, but unless it becomes severe, it should not be checked, as it is preferable for the child to cut his teeth under those circumstances. Children very often suffer from digestive ailments, which cause the so-called teething rash. These should be treated on such general principles as are described in the section on the digestive tract (*see paragraphs 77 to 79*). During this period the use of the "Allenburys" Diet will often prove helpful (*see paragraphs 51 to 53*). Nerve storms and derangements are not infrequent, as evidenced by convulsions and spasmodic croup. In a thoroughly healthy child, however, there is generally little more than fretfulness and sometimes slight diarrhœa. If the child be constipated, it should be given teaspoonful doses of the "Allenburys" Magnesia until the condition is relieved; but if further measures prove necessary refer to paragraphs 85 to 87 on constipation.

74. Since 1927, when the Therapeutic Substances Act came into force, the preparation of vaccine lymph in this country

Vaccination has been carried out strictly in accordance with its provisions, which, *inter alia*, define

the standard of purity for vaccine lymph. With all the precautions now taken the percentage of cases in which any serious complications occur after vaccination has been reduced to infinitesimal proportions, and the great value to the country of a community protected by vaccination is continually being demonstrated. The present neglect on the part of so large a section of the populace to avail itself of the protection afforded by vaccination is costing the country large sums for the accommodation and treatment of smallpox patients during epidemics, to say nothing of the direct loss of productive work involved. Parents who feel any doubt on the question of vaccination should not hesitate to consult their doctor before incurring the serious responsibility of neglecting to have their children vaccinated. For instance, if a baby girl should fall a victim to smallpox and become disfigured for life, it is not difficult to imagine her feelings in later life in regard to the neglect of this simple precaution which should have been taken on her behalf. Fortunately, most cases of smallpox occurring in the British Isles of recent years have been of a mild type, but there is no certainty as to how long this will continue.

Primary vaccination should be performed within the first three or four months of life, when the risk of complications is negligible. One insertion only is now officially regarded as the best procedure, and this should be repeated when the child is of school age (5 to 7 years), and again at the usual school-leaving age (14 to 16 years).

After vaccination a simple dressing of boric lint or sterile gauze should be applied and fastened with strapping or tapes. The dressing is renewed on the day of inspection,

which, in most cases, is exactly one week after vaccination. Great care should be taken to prevent the arm from being knocked, and the sores, left by the vesicle, from being infected by harmful germs. To prevent rubbing, the clothes should fit loosely over the vaccinated part, otherwise irritation and redness may occur. Almost all cases of "bad arm" are due to accidental secondary infections from insufficient care. It should be the duty of every mother or nurse in charge of a newly vaccinated baby to see that the above precautions are carried out.

75. Here, again, the young mother should learn from those who know, rather than rely upon her own scanty experience.

Respiratory System

The panacea of all chest ills does not lie in poultices, camphorated oil, and ipecacuanha wine; the mother or nurse should note the symptoms, without attempting to form a diagnosis for herself. Let us suppose that the child is breathing quickly and with difficulty; it is feverish and restless. These symptoms may have come on quickly, and are often noticeable after a disturbed night. Closer inspection shows that the nostrils move in and out with each breath, and that, although the breathing is laboured, there is but little rise and fall of the chest, showing that little air is entering the lungs. Beyond getting the bowels open, the mother should do nothing on her own initiative, for the infant is probably suffering from some acute inflammatory disorder of the breathing apparatus which can only be diagnosed by proper examination. *The advice of a doctor is imperative.* Where camphorated oil is used by the mother or nurse, scrupulous cleanliness of their hands and the child's body is the first essential. It should be remembered that an infant's skin is very tender, so that any rubbing must be very gentle indeed, and in most cases it is preferable to apply a soft piece of flannel sprinkled with the oil.

Every child should always be trained to *breathe through the nose*, both by day and night. This is most important for its health and development. If the child is observed to have any persistent difficulty in doing so, early medical advice is desirable, to obviate the growth of adenoids and their attendant troubles. If a healthy child's mouth is found to be open during sleep, it can usually be gently closed without waking him, and this is a helpful practice.

76. Poultices are of little use except in certain cases of acute bronchitis, where the breathing is tight and harsh in sound, or in pleuro-pneumonia, accompanied by **Poultices** severe pain. With infants, especially when the temperature is very high, poulticing is harmful; the weight of the poultice checks the breathing: if hot, it helps to keep up the fever; and if cold, it is worse than useless. Counter-irritation with capsicum wool, or the application of moist heat by the use of "**Caloplast**" are in many cases far preferable. No independent treatment should be attempted; everything should be done under medical supervision. Dosing with ipecacuanha wine is much to be deprecated. The drug is very depressing.

77. So far as the mother need concern herself, the infant's digestive apparatus consists of stomach and bowel. Irritation or overloading of the stomach produces wind, pain and sickness; irritation or overloading of the bowel produces wind, pain and often diarrhoea. Both produce distension. If the child is overfed, there is frequent sickness, and undigested food will be found in the motions. The remedy is simple, *viz. : to give suitable food in proper quantities and at regular intervals (see paragraphs 31 to 33)*. The symptoms described

above also occur with irritation and catarrh, the latter, however, usually occasioning profuse diarrhoea, with mucus and slime.

78. Although the commonest cause of sickness is overloading of the stomach, yet many healthy children are frequently

Sickness sick, without apparent cause, and in spite of correct feeding. In such cases there is little

need to worry provided that good progress is maintained.

But in cases where it seems desirable to take further steps, the following simple and harmless remedy should be tried.

The addition of citrate of soda—one of the constituent salts of cow's milk—renders the curd of the food finer and therefore more easily digestible. Crush a two-grain tablet

to powder and stir it into the food in the measure, for every

bottle of the **“Allenburys” Milk Foods Nos. 1 and 2,**

and use a five-grain tablet for every bottle of the **Malted**

Food No. 3. If the bowels become too relaxed, the

frequency of the dose should be reduced. The use of

citrate of soda over prolonged periods is entirely harmless.

Other precautions which may also be taken with advantage

are described in paragraph 33. Air swallowing is another

common cause of sickness, and this trouble would seldom

occur if the infant was fed properly, *viz.*, by hand from the

bottle when reclining in the arm of its mother, as in breast-

feeding, the meal lasting from 15 to 20 minutes.

If it is considered desirable to change the food for a time

in order to relieve the sickness, the **“Allenburys” Diet** can

be used as suggested in paragraphs 51 to 53, or alternate

bottles of the Diet and Food may be given. There is no

need to add citrate of soda to the Diet.

79. Flatulence and hiccough in infants are often due to

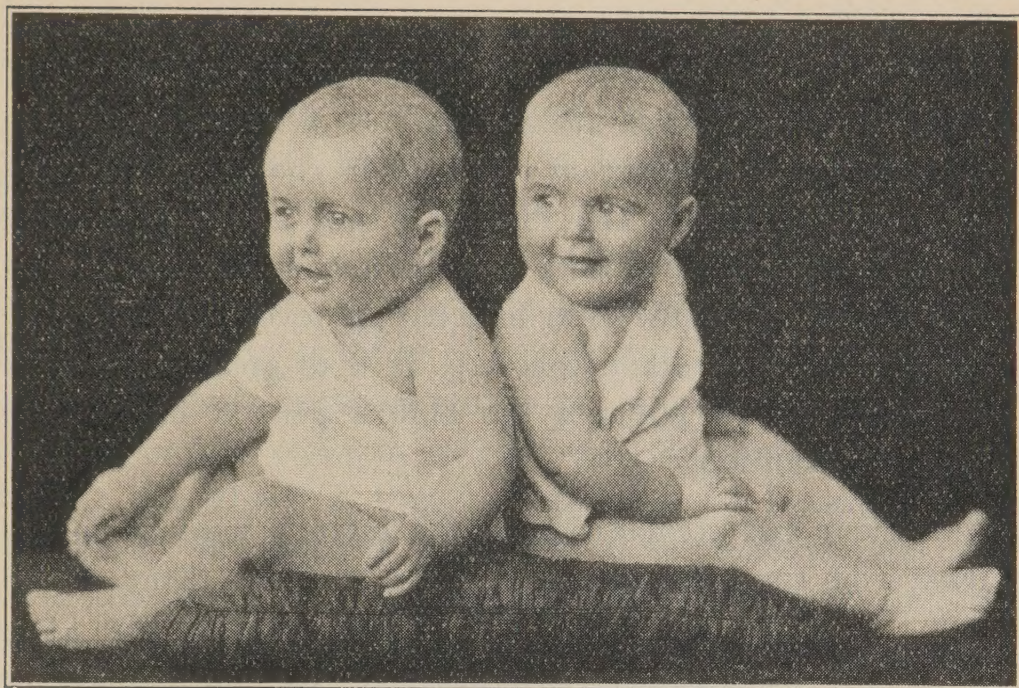
Flatulence indigestion. Improper food, too much food, and constipation are usually the causes of

indigestion, and these errors should be corrected. Flatulence

is more often the result of the infant's swallowing its food too quickly and getting too much at a time. For this reason it is advisable to use the "**Allenburys**" Feeder, the teats for which are supplied with perforations of two distinct types and different numbers of holes, to suit the requirements of any child (*see paragraph 46*). Infants should take from fifteen to twenty minutes over each meal (*see paragraphs 31 to 33*). To correct flatulence or excessive acidity in the stomach, occasional small doses of the "**Allenburys**" **Carminative** will be found useful and grateful to the child. Dose : For infants under two months, half a teaspoonful ; for infants over two months, from half to one teaspoonful according to age. The dose may be repeated in an hour's time if necessary, and the Carminative may be diluted with a little water if it is found to be too strong in any particular case. It is often helpful for the mother or nurse to place the child over her shoulder, at the same time gently patting his back. Restlessness during the early hours of the night is frequently due to flatulence, but the trouble is usually quickly relieved by sitting the infant up in bed for a few minutes, patting the back meanwhile. Afterwards a drink of cold boiled water may often be given with advantage.

80. Thrush is caused by a species of organism—a fungus. The seeds of this fungus are constantly floating about in the air but, in contact with milk, they germinate and develop into the fungus. If the infant swallows this with the food, the condition known as thrush may appear in the mouth. The disease, however, does not usually affect a normal healthy mouth, but among predisposing causes the commonest are an improper diet, uncleanliness of the mouth, acid fermentation of remnants of food, and any catarrhal condition of the mouth.

Thrush is characterised first of all by pearly-white spots inside the mouth on the cheeks, gums, palate and tongue,



(Twins) Marion and Joyce. Age 7½ months

usually beginning on the latter. These spots or patches afterwards coalesce and form a membrane. The infant becomes cross, fretful, and has a tendency to diarrhœa. The buttocks may become red and irritated from the diarrhœa. Thrush can be cured by strict cleanliness in preparing the food, or, in the case of breast feeding, by washing the nipple thoroughly after each feed with "**Dioxogen**" diluted 1 in 10 parts of tepid water. The infant's mouth should also be cleansed with a similar weak solution of "**Dioxogen**" (1 in 10) after each meal, to remove any traces of milk, or be swabbed out with borax and glycerine, or bicarbonate of soda solution (one teaspoonful to half-a-pint of water). The swab should not be of the form often sold—a sponge on a holder—as the pores of the sponge itself become contaminated with the thrush fungus; it is better to wrap a clean piece of linen rag round the first finger, and dip it in the solution, and then gently rub every part of the mouth. For convenience, mouth swabs made of gauze with woven edges and measuring 3 in. by 3 in. are supplied in packets of 100.

Though thrush is more common in weakly children, it does occur in the robust also. It should be remembered that *thrush is a preventable disease*, and its occurrence is more often than not a reflection on those in charge of the child (see paragraph 64). The disease is not confined to very young infants, because older children may suffer from it, and even adults are sometimes affected in fevers and wasting conditions due to other diseases. It is of great importance to endeavour to improve the child's general health and hygienic conditions.

81. The colour and composition of the infant's motions should always be carefully watched by the mother. They should

Nature of Excreta

be semi-solid, pale yellow and of the same consistence throughout. If the stools be green and too fluid, a few small doses of the "Allenburys" Castor Oil may be given. Slime is an indication of bowel irritation, and generally arises from improper feeding. Lumpy material indicates that the child is being fed on some form of milk, probably insufficiently diluted cow's milk, which the child cannot digest. Other varieties of undigested foods may show that such articles of diet should be avoided in the future, or that the quantity taken should be reduced.

82. Irregularity of the bowel, with wind, is often due to faulty feeding, but the correction of this error is generally insufficient to overcome the trouble. If the

Irregularity of the Bowels

action of the bowel has become temporarily deranged, it can best be brought back to regular habits by small repeated doses of castor oil. Small doses of five to fifteen drops, given two or three times a day, are better than one large dose, especially when looseness alternates with constipation. The "Allenburys" Castor Oil should be used, as it is exceptionally pure and has little odour or taste.

83. In certain districts the water may sometimes be the cause of looseness of the bowels, and the simple expedient of boiling it for ten minutes should first be tried, *Tendency before allowing it to cool off to 150°F., the*
to correct temperature at which it should be
Looseness added to the food, when mixed into a paste
in accordance with the directions (*see paragraphs 36 and 37*). Reduction of the quantity of food powder, and prolongation of the intervals between meals are other steps which are often successful and can be tried (*see paragraph 33*).
Failing the above a habitual tendency to looseness can frequently be checked or cured if a tablespoonful of fresh lime water be added to each bottleful of food, and, if further measures prove to be requisite, barley water may be used in compounding the food instead of pure boiled water. The "**Allenburys**" **Barley Flour** is convenient for preparing this. Unless lime water can be obtained fresh and good, it is better to add fifteen to twenty drops of the Saccharated Solution of Lime to each meal. If cow's milk is being given, it should be well boiled.

84. The mother should never lose time by attempting to treat acute diarrhœa, which may prove fatal in three days.
Diarrhœa Only a medical man should ever deal with
such cases, the difficulties concerning which he alone can recognise and treat. Diarrhœa is more liable to occur in summer time, especially in bottle-fed children, and it is this *summer diarrhœa which demands the prompt intervention of the doctor*. Diarrhœa during teething is very common. If simple remedies do not then avail, medical advice should again be sought.

Diarrhœa may occur through overfeeding, with excess of fats or carbohydrates in the dietary, also through under-feeding, but the commonest causes of the trouble are improperly digested food or milk swarming with harmful

germs. Undigested curd often appears in the loose pale or green motions, giving a clue to the treatment. Simple diarrhoea usually yields when cow's milk is given up and the **"Allenburys" Milk Food No. 1** is used (*see paragraphs 9 and 10*). When the abdomen is much distended, with frequent small motions containing slime, mucus and sometimes blood, there is catarrh of the large bowel, and *medical advice should be sought*. It is usually advisable at the onset of an attack of diarrhoea to give half a teaspoonful or less according to the age of the infant, of the **"Allenburys" Tasteless Castor Oil**, and to repeat the dose two or three times, allowing an interval of four hours between each dose. Half a teaspoonful of raw arrowroot, mixed with a little water, may also be given occasionally with advantage. In severe cases it may be necessary to discontinue all milk and to give instead weak chicken, mutton, or veal broth, or the white of egg mixed with water, and sweetened. Where weakness is pronounced, the **"Allenburys" Beef Juice** mixed with the white of egg and water will be found to be a valuable and stimulating food. Its use will often help to tide over a crisis in such cases (*see paragraph 50*). Scrupulous cleanliness of the feeding bottle and all utensils used in preparing the food must be observed (*see paragraphs 44 to 46*) and all milk should be boiled. The **"Allenburys" Milk Food No. 1** given in the **"Allenburys" Feeder** is a particularly successful system of infant feeding in these cases. Both the nursery and bedroom must be kept well ventilated, perfectly clean and free from dust, and special attention should be paid to improving the general hygienic conditions. Careful cleansing of the hands is *essential* after attending to baby's toilet, before any handling of food or food utensils.

85. In the majority of cases of constipation the stools are dry, pale, and often hard and lumpy, with an excess of mucus,

and occur only once a day, or even less frequently. There is much straining, and sometimes the mucus is tinged with blood. The abdomen is often

Constipation

distended, and in chronic cases the infant may become weakly and anæmic. Constipation is usually due to a want of muscular power and tone in the large bowel, the liquid secretions may be small, and there is frequently a deficiency of bile. It may also be brought on by excessive acidity in the stomach, causing the milky constituents of the food to form into hard curds. This can be checked by the use of citrate of soda, which, for convenience, is supplied in tablet form. A two-grain tablet may be added to every bottleful of Milk Food and one or two five-grain tablets to *each* bottleful of Malted Food (*see paragraph 78*). In some cases tablets of similar strengths of bicarbonate of soda are found to be more effective. Another simple expedient which should be tried is to add half to one teaspoonful of "**Allenburys**" **Magnesia** to the morning bottle two or three times a week.

If the "**Allenburys**" **Foods** are used, the chances of constipation occurring are diminished, but, as is well known, some infants are naturally and sometimes obstinately constipated.

As in feeding, so with the bowels, regularity should be the aim of the mother or nurse. Firmness, with kindness and patience, will nearly always instil into the child that regularity of habit, which is not easily lost, and without which perfect health is impossible. At the same time it is most important to see that the child does not strain too hard, otherwise there is risk of rupture. A squatting position, with the abdominal walls supported by the front of the thighs, is the natural one and reduces this risk, it also facilitates the passage of the fæces. After four months of age the infant should be trained to sit on a small chamber, the back being carefully supported by the mother.

As there is no one sure remedy for every case of constipation, trial must be made of those that are available, preferably beginning with the simplest, and treating each case with discretion.

In some districts the quality of the water may be the sole cause of trouble, and on using the same water, *after it has been boiled for 10 minutes*, the constipation is cured. Cold boiled water, given between meals, often mitigates constipation, particularly during teething, when it also tends to allay the pain and heat of the gums. Plenty of water, given between meals and when the child is not overheated, is one of the best preventives of constipation. Before resorting to medicine, an effort should always be made to overcome chronic constipation by regulating the diet. For this purpose many of the fresh articles of diet, mentioned in paragraphs 24 to 26, will be found useful. It may be necessary to increase the quantities there mentioned, or to give such other simple fruit preparations as the sweetened and strained pulp and juice of stewed apples or prunes, or the juice only to very young infants. The '**Allenburys**' '**Fruitine**' is a mild laxative for children, in the form of a palatable confection, made from figs, prunes, tamarinds and sweet oranges, and it contains no added drug. Its use obviates the trouble of preparing the usual fruit pulps referred to above—a convenience that will be especially appreciated by those who are travelling. Its taste is so pleasant that children relish it and will take it like jam—a happy contrast to the frequent difficulties of giving some children medicine. To infants under six months give daily half a teaspoonful, and to those over six months one teaspoonful or more according to age. The frequency of the dose may be increased if necessary. Constipation may frequently be remedied by an increase in the fatty constituents of the food. This may be easily effected by the addition of cream, or by giving frequent small doses of the "**Allenburys**" **Cod-Liver Oil**, or

“Bynol” Malt and Oil. To infants under six months give half a teaspoonful of either three times a day after meals, and to children over six months a teaspoonful or more according to age.

86. For habitual constipation the same small doses of the **“Allenburys” Malt Extract**, or **“Bynol” Malt and Oil**, may be tried. In addition to the laxative effect of the malt extract, they afford a useful addition to the ordinary diet. If this is insufficient, small doses (ten drops or more) of the **“Allenburys” Castor Oil** may be given two or three times a day for a week or so, until the condition is relieved.

Chronic Constipation

In the case of some children an intestinal lubricant may be found preferable to any other form of medicine, and for this purpose **“Chrismol”** can be used with advantage. **“Chrismol”** is a specially refined and redistilled liquid paraffin, without colour, odour or taste. It is not a purgative, but its action is that of a lubricant, which procures an easy evacuation, and at the same time exerts a soothing effect. **“Chrismol”** is quite harmless and has proved extremely useful in many obstinate cases. It is supplied plain and flavoured; the plain is the better for infants, as it is entirely without taste, and may be given from a spoon half-an-hour before meals, if necessary, three times a day. For infants under six months the dose is half a teaspoonful, and for those over six months one teaspoonful. For older children the dose can be gradually increased. **“Byno Chrismol”** combines the advantages of **“Chrismol”** with those of the **“Allenburys” Malt Extract**, the two being incorporated in equal proportions. The lubricating action of the oil is supplemented by the laxative properties of malt extract, and experience has shown that this combination is most effective. The malt extract has also

a marked nutritive and digestive value. "Byno Chrismol" is a useful and palatable product, and children take it with relish—an advantage that will be appreciated by mothers and nurses. It can be given in the same doses as "Chrismol," but with or shortly after meals. For more obstinate cases "Byno Chrismol" with Senna should be tried. "**Lixen**" is another product that often proves useful. It is a special extract of senna from which the griping properties have been removed, and which is agreeably flavoured. One teaspoonful is equivalent to twelve large senna pods. The dose for children is 15 drops or more according to age. For convenience "**Lixen**" is also supplied in the form of Laxative Lozenges, which, possessing a pleasant fruity taste, make a special appeal to children, the dose for whom is half to one lozenge according to age.

87. For the immediate relief of acute constipation (*i.e.*, constipation of short duration) it may be desirable to give an

**Acute
Constipation**

injection of warm water through the rectum (back passage). For this purpose use a child's enema syringe, which usually holds from two to three ounces. After lubricating the nozzle with vaseline, carefully insert it through the anal opening, and compress the bulb gently and firmly till all the water is injected, taking care to avoid as far as possible the injection of air with the water. It may be necessary to repeat the injection once or twice in accordance with the age of the child and the degree of constipation. Resort should not be had to *this method* of overcoming constipation more often than is absolutely necessary, because it is undesirable that the child's bowels should form a habit of this means of relief. It is, however, dangerous to give aperients in *any* case where there is pain in the abdomen or vomiting, till the doctor has given permission. Till then, injections should be used. Glycerine suppositories are also useful for treating acute constipation. They are made in five sizes, the small size containing 15 grains is suitable for infants, and the 30 grains

size for young children. In some cases it may be necessary to give a dose of castor oil as well, whilst remembering that castor oil frequently has a constipating after-effect.

88. Sore buttocks may be caused by the unhealthy state of the infant's bowels. It is useless to expect to cure the soreness

**Sore
Buttocks**

without first getting the digestion into proper order. Errors in the diet must be corrected, diarrhœa checked, undue fermentation in the bowel stopped, and thrush cured (*see paragraphs 77 to 87*). The child's napkins must be changed frequently, and the buttocks should be carefully cleansed and thoroughly dried. It is necessary at the same time to apply some greasy preparation, so that the irritating discharge does not come into contact with the abraded surface more than can possibly be helped. For this purpose "**Eumollia**" is recommended. For infants who have an abnormally tender skin, this preparation or cold cream should always be used for their toilet in preference to any powder. If the constitutional disturbance is severe medical advice must be sought immediately.

89. These parasites, sometimes known as pin-worms, are from $\frac{1}{4}$ to $\frac{1}{2}$ an inch long, and chiefly inhabit the lower part of

Thread-worms

the rectum, often causing great irritation of the back passage. The worms can frequently be detected in the stools. They cause an intolerable itching, especially at night, and the child may become restless and irritable, and suffer from disturbed sleep and loss of appetite. If the mother or nurse notices such symptoms, all the stools should be carefully inspected. It is *cruelty to allow the condition to persist*, as the misery caused is often greater than may be imagined; older children are sometimes too shy to complain of their trouble, and this fact should be borne in mind. Cold injections daily of salt water (one level tablespoonful of

salt to a pint), by means of a child's enema syringe, are usually sufficient to overcome the trouble. The injections should be repeated for at least ten days. Keep the hips well raised so that the fluid may be retained for as long as possible. If this simple remedy does not suffice, medical advice should be sought. To allay the intense itching and irritation at night, vaseline should be freely applied to the parts.

As prevention is better than cure, so the handling of dogs and other animals, also the sucking of fingers, etc., should be discouraged, and the habit of washing the hands before meals should be insisted upon. Frequent inspection of every child's stools should be made, as the worms are easily detected, and the remedy, which is simple, can then be applied early.

90. By the end of the first year, and often earlier, a well-trained infant will have acquired cleanly habits during waking hours. Control during sleep however, is not usually established for another 12 or 18 months. The desired result is obtained by degrees where a healthy, regular daily routine is observed, a word of blame or of praise being used as occasion demands. After $2\frac{1}{2}$ to 3 years of age, however, bed wetting must be considered abnormal and it is these cases to which we wish particularly to refer. Children of this age suffering from incontinence by day as well as by night should be referred to a doctor.

***Incontinence
of Urine—
Bed Wetting***

Bed wetting almost invariably occurs during the early hours of heavy sleep and once midnight is passed there is less likelihood of its occurrence. It is essential therefore to see that the child passes water the last thing before going to sleep and that he takes sufficient time and trouble *to empty the bladder completely*. An hour later when sleep is at its deepest, and again at 10 or 11 when the parents go to bed,

the child should be gently lifted on to his chamber, when he will pass water automatically and without awakening completely. After this he will probably have no further need till morning.

Should the above procedure fail, one must ascertain whether any reflex cause or irritation exists—the presence of threadworms in the bowel, a tight foreskin, adenoids, for example. The urine itself may be at fault, excessively acid or abnormal in amount. This may result, amongst other causes, from unsuitable diet, excess of meat, insufficiency of fluids. Children addicted to bed wetting should be given plenty of water and fruit juice in the early parts of the day, but after 5 p.m. further liquids should be restricted to a minimum.

Incontinence of urine in children of four and over is usually associated with a nervous, highly-strung disposition. *Punishment* here invariably *aggravates* the malady and many a delicate child, after a single or occasional lapse, has become the victim of this distressing complaint through ill-timed disciplinary measures. Such children need to be reassured and encouraged, not reprimanded and threatened. A mackintosh sheet should be provided and the child told that he will probably not have any difficulty in waking up in time; but even in case of “a little accident” no great harm will be done. Lapses should be ignored, success taken as a matter of course. Once remove the *fear* of bed wetting, cure soon follows in the majority of cases. Doctors’ medicine often succeeds for no other reason than by restoring the little one’s confidence. A pinch of bicarbonate of soda in a little water given three times a day, with the assurance that it will soon remedy the trouble, is frequently equally successful.

In many cases children who wet the bed at night also have unduly irritable bladders by day. At home they are

constantly running to the lavatory; at school they are constantly asking to leave the room. In such cases the objective should be to get the bladder under control. Parents or nurses should therefore train their children to empty the bladder at fixed hours. The child is not permitted, at first, to pass water for two hours, then for three hours, then for four hours, and so on. When the child can hold its water for four or five hours, the nocturnal incontinence frequently disappears. The bladder becomes trained, just as the rectum can be trained to function properly.

91. Everyone in charge of children should learn to treat

***Spasmodic
Croup***

spasmodic croup, because the attacks come on so suddenly. It is most common between the ages of two and five years. The child may catch a slight cold, goes to bed, and during the night is suddenly awakened to find itself fighting for breath. It struggles for air, goes blue in the face, and finally, before many seconds air is drawn into the lungs with a harsh, stridulous or crowing noise. Several such breathings in may take place, and another catch or interruption in the breathing occurs. The attack is sudden and alarming and may cause the parents much anxiety, but it seldom proves fatal. The child should at once be taken up and put into a hot bath, or, if that is of no avail, hot and cold water should be dashed over it alternately, particularly over the face. Another good plan is to put a finger down the child's throat to promote vomiting; this often effectually stops the spasm of the laryngeal muscles, which is the cause of the obstruction of the air passage. A teaspoonful dose of ipecacuanha wine, repeated if necessary, is a favourite remedy to start vomiting, and is specially indicated if the child has overloaded the stomach during the day. Slight attacks may occur and give rise to what is known as "child crowing." Spasmodic croup is of nervous origin and, to cure it, the mother must look

rather to improving the general condition of the child, than to any local treatment. Some cases of true croup, diphtheria, and choking by objects that have entered the breathing passages, resemble this milder trouble, therefore early medical advice should always be sought.

92. Whooping cough is the most troublesome and prolonged of all the chronic ailments of children, and is distressing alike to the child and its parents. The exact

**Whooping
Cough**

period for cure is uncertain, and the tedious nature of the disease only too sure. Much can be done by adopting palliative measures, and, in addition to internal medication, antiseptic inhalations are of value. The disease is due to a germ, which causes spasms of the glottis by irritating the nerve endings in the mucous membrane of the throat, and the whoop is produced by the long drawn out effort of breathing in, through the narrowed opening of the larynx.

The onset of the disease often resembles a simple catarrh, with slight irritation of the throat; the child feels out of sorts, and the temperature may occasionally be found to be a little above normal, but when the spasms begin there is no doubt as to the nature of the trouble. The efforts to get breath, which are the cause of the whoop, and the sudden and violent sickness are most distressing symptoms to witness, and the child should *never be left unattended*. At night, immediately a paroxysm of coughing starts, the child should be sat up in bed in a leaning-forward position, and the head should be supported over a basin. In the day time also, when the child is up, support is always welcome, and helps to relieve the fright so often caused by an attack. If no one reaches the child in time, he will cling for support to the nearest object.

Many years' experience has proved the value of "**Vapo-Cresolene**" inhalations in the treatment of whooping cough.

The liquid cresolene is a specially prepared cresylic acid of high purity and low boiling point and it is far superior to carbolic acid, both as a germicide and antiseptic. The “**Vapo-Cresolene**” outfit consists of a simple apparatus for vaporising the cresolene by the heat of a small specially constructed lamp. When employed in this way the cresolene vapour is inhaled continuously so that its action can be exerted upon the germs of whooping cough present on the walls of the air passages. The soothing effect of the vapour upon the spasms is very marked. It should be used in conjunction with other measures under medical supervision. Among simple remedies for internal use preparations of garlic and those combining aniseed and sulphur have for many years been successfully employed.

In mild weather the child should be out of doors as much as possible, but should never get overheated nor tired from too much exercise, as this will bring on the spasms, besides involving the risk of a chill. In cold or wet weather great discretion must be used as to the child going out of doors and as to its clothing. Plenty of fresh air is needed both in the nursery and night nursery, but the cresolene lamp should be in a position out of draughts and fairly near the child, in order that the full benefit of the vapour may be derived.

For the last meal at night the “**Allenburys**” Diet should be given, as the child will assimilate this more quickly and retain it better than any other form of food (*see paragraphs 51 to 53*). Indigestible food or too large a quantity should be carefully avoided; and it should be remembered that strong emotion, crying and over-excitement tend to bring on the fits of coughing and sickness.

93. The brain of an infant is more unstable and more easily upset than that of an adult. Hence convulsions often occur

Convulsions in childhood. Convulsions may be described simply as a sudden abnormal discharge of nervous energy from the brain, usually due to an exciting cause acting in some other part of the body. Common causes of convulsions are the local irritations of teething, whooping cough, croup, constipation, the initial rise of temperature of an acute fever (measles, scarlatina, pneumonia), and worms. The first duty of the mother is to remove the cause of the debility by proper feeding and attention to general hygienic conditions. When convulsions occur the child should at once be undressed and placed in a warm bath, not exceeding a temperature of 96° F. If there is fever the head may be douched with cold water at the same time. As soon as the convulsion is over the child should be quickly dried, wrapped up and put to bed, not nursed. *In all cases of convulsions medical advice should be sought without delay*, as it is impossible for a mother to tell whether the convulsion has a serious import.

94. Rickets is a condition usually associated with malassimilation and malnutrition ; its cause, which was for so long a mystery,

Rickets is now clearly proved to be nearly always due to a lack or deficiency of Vitamin D, or of the mineral elements, calcium and phosphorus, brought about by dietetic errors, absence of sunlight, the breathing of vitiated air and lack of exercise. The smoke-laden atmosphere of large cities prevents the proper penetration of the sun's beneficent rays, especially during the winter months, when the incidence of rickets is greatest. Occasionally infants are born with rickets, due to unfavourable conditions of the mother's life during pregnancy. As previously stated in paragraph 24 the scientific discovery that Vitamin D can be produced by exposing certain substances to the action of

artificial sunlight, in the form of ultra-violet light, has been applied in the manufacture of the "Allenburys" Foods, so that their natural vitamin content is now augmented by the addition of definite proportions of Vitamin D produced by this new method, while they contain ample proportions of calcium and phosphorus, thus ensuring *complete protection against rickets* and assisting in the formation of healthy bone and teeth.

Rickets is characterised by enlargement of the ends of bones and ribs, weakness of muscles and bones, and enlargement of certain internal organs. Teeth are cut late, and there is particularly a predisposition to convulsions and other nervous derangements, such as spasmodic croup. Three symptoms are usually present in all well marked cases, viz. :—(1) A general tenderness over the whole body, so that the child cries or screams when it is moved. (2) Slight fever with a temperature of 100°-101·5° F., and restlessness at night. (3) Profuse sweating, chiefly about the head and neck. There are many other symptoms, but the above are the most prominent.

The treatment must be chiefly hygienic and dietetic, and must be carried out over a long period. As absence of sunlight and bad ventilation are strong predisposing causes all infants should have as much fresh air as possible (*see paragraph 69*). The most important dietetic measure is to include *an adequate supply of fresh elements* in the food (*see paragraphs 24 to 26*), increasing both the quantity and frequency of the doses of cod-liver oil.

The child should also be fed with easily digested and nourishing food. The "Allenburys" Cod-Liver Oil, and "Bynol" are very valuable. The "Allenburys" Cod-Liver Oil is an oil of the finest quality, prepared from fresh cod-livers only, by a special and distinct process which

ensures the preservation of the high proportions of the growth-promoting and anti-infective Vitamin A and of the antirachitic Vitamin D, naturally present in this oil—a matter of great importance in regard to many of the uses to which cod-liver oil is now put.

The “**Allenburys**” **Beef Juice** is also a useful and palatable product, as an addition to the diet in such cases (*see paragraph 50*).

95. Scurvy rickets is the somewhat misleading title for a comparatively rare condition which may arise in children who have been the victims of prolonged malnutrition. Infantile scurvy is the more accurate title, as in more than half the cases met with there are no symptoms of rickets. However, sometimes the two diseases are found together, and both are attributable to malnutrition and require similar treatment, *viz. :—the addition of suitable fresh elements* to the diet (*see paragraphs 24 to 26*). The majority of cases arise between six and ten months of age. The child is fretful and peevish, seems weak in the back and neck, and does not raise the head easily ; it cries when lifted, and appears to be in pain when the legs or thighs are touched or moved. Under medical treatment recovery is usually rapid ; it may generally be effected by correcting errors in the diet, which *must include those all-important fresh elements*, the omission of which is by far the greatest factor in causing the disease. A full list of suitable articles will be found in paragraph 25, but the frequency and dose of fresh orange or fresh tomato juices—the most potent sources of Vitamin C—must be increased beyond that given to normal infants. For more than 30 years the labels and literature issued with the “**Allenburys**” **Foods** have emphasised the importance of the regular use of suitable fresh elements of diet ; it is significant that a more precise knowledge of infantile scurvy

confirms the necessity of such additions whilst laying stress upon improvement of the general hygienic conditions.

Given a proper progressive *change* of dietary and the introduction of the fresh substances recommended—it has been proved that the intelligent use of the **“Allenburys” Foods** will obviate the occurrence of rickets and infantile scurvy, and avoid the far more constant and potent danger of infection from pathogenic organisms, in addition of course to ensuring a healthy rate of growth and development.

The following products are specially useful for children:—

96. Where malt extract is advised to be given in combination with cod-liver oil, to improve the child's appetite as well as its general condition, no better combination **“Bynol”** can be found than **“Bynol,”** which contains the high percentage of 30% by volume of the purest cod-liver oil from our own coastal factories, combined with malt extract, prepared from the finest barley, rich in maltose, phosphates and albuminoids. **“Bynol”** is therefore a potent source of the vitamins A, B and D. The preparation is of great value in all cases where the child is thin and below par, and should always be taken by weakly children during the cold winter months. The cod-liver oil is combined with malt extract and flavoured in such a way as to produce a pleasant preparation, in which the oil is not tasted; children relish it.

Dose.—Infants under six months, half a teaspoonful three times a day, either in the food or immediately afterwards. Infants over six months, from one teaspoonful up to a dessertspoonful, according to age, three times a day, with or immediately after food.

97. Of the different phosphate preparations, the best for young children is that known as Parrish's Food. ALLEN & HANBURYS, however, have effected an important improvement in it by replacing the syrup, in which the constituents are dissolved, by their well-known Liquid Malt Extract,
- “Byno”
Phosphates**

“Bynin.” The malt not only sweetens the preparation, but affords an active and useful digestive agent. This preparation is known as **“Byno” Phosphates**, and contains much less free acid than is usually present in the ordinary chemical food.

Dose.—Infants from two to six months, half a teaspoonful in a little water twice or three times a day, immediately after meals. Infants over six months, from one teaspoonful up to a dessertspoonful according to age, three times a day, immediately after meals.

98. **“Byno” Hæmoglobin** is an ideal blood-forming food and concentrated nutrient. Its use has proved of considerable value to rapidly growing children, in enabling their strength to keep pace with their growth. For anæmia and in the convalescence of children it acts as a valuable restorative. **“Byno” Hæmoglobin** is essentially a liquid food rich in iron, in an easily assimilable form, and it is best given with or immediately after meals.

Dose.—For infants from six to twelve months, half to one teaspoonful once a day, with or immediately after meals. For children from one to four years of age one teaspoonful twice daily, gradually increased to a dessertspoonful. Older children should take up to a tablespoonful, two or three times a day, according to their age and weight.

99. **“Bynotone”** is a combination of bone marrow, liver fat, yeast nuclein, hæmoglobin, soluble milk protein, and malt extract. It is therefore an accessory food rich in the growth-promoting Vitamin A, in Vitamin B, which is associated with the proper nutrition of nerves, and in Vitamin D, which prevents rickets and assists in the formation of healthy bones and teeth. The natural Vitamin D content of the ingredients of **“Bynotone”** is also augmented by the addition of a proportion of synthetic Vitamin D, prepared by the process of ultra-violet light irradiation. **“Bynotone”** is, therefore, exceptionally rich in the anti-rachitic factor and its

routine use is definitely protective against rickets and allied disorders. Its chief use is for weakly and debilitated children, in whom a course of "Bynotone" for three or four weeks will often effect a wonderful improvement, in regard to both weight and general health. Its value is amply demonstrated by its administration in such cases, as well as in convalescence after any of the infectious illnesses of childhood. Being in the form of crisp granules "Bynotone" is pleasant and convenient to take; its palatable flavour makes a special appeal to children. "Bynotone" may be taken dissolved in the food or in a little warm milk or water, or in the case of older children in sandwich form between bread and butter. It should not be added to the food until the latter has cooled off to 100° F.

DOSE.—For infants from six to twelve months, half a teaspoonful, twice or three times a day as a restorative food. For children from one year old and upwards, from half to one teaspoonful, according to their age and weight, three times a day.

Isolation and Disinfection.

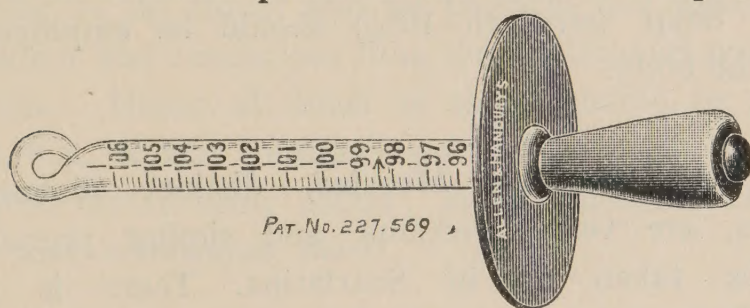
100. In the event of an acute infectious illness, the patient should at once be isolated in a separate wing or room, removed from the rest of the household. Those nursing the patient should preserve the same absolute isolation. A sheet soaked in **Lysol**, "**A. & H.**" (five tablespoonfuls to five pints of water) should be hung over the door and kept continually damped with the disinfectant. All drinking and eating utensils, used in the sick-room, should be kept separate in the isolated part of the house. Those which have to be removed to the kitchen should be plunged into a big zinc bath of **Lysol**, "**A. & H.**," solution (two tablespoonfuls to five pints of water) outside the sick-room, whence they can be removed without fear of contagion. The sick-room must be kept well ventilated, moderately warm, and should be provided with a thermometer; the "**Allenburys**" **Food Thermometer**

can be used for this purpose (*see paragraph 35*). Sunshine, the greatest of all germ destroyers, should be admitted freely. These remarks apply to the infectious diseases, including Scarlatina or Scarlet Fever, Measles, German Measles and Diphtheria.

As will be seen from the illustration the infants' clinical thermometer consists of a substantial glass thermometer, the bulb of which partially projects through a rubber teat and guard.

This thermometer possesses a unique advantage in that it can be used with perfect safety for taking the temperature by the infant's mouth, and its use obviates the well-known difficulties in obtaining correct records from the ordinary clinical thermometer placed in the infant's armpit, groin or

Infants' Thermometer



rectum. The teat is easily detachable and should be taken off and washed both before and after use in the same manner as a feeding bottle teat (*see paragraph 46*). After cleansing the thermometer and the teat, both should be immersed for not less than five minutes in a solution of "Dioxogen" of the strength one tablespoonful to three tablespoonfuls of water.

In Use. Whilst still wet place the teat on the thermometer and push the bulb through the hole in the teat until the end of the teat is folded upon itself, about three-quarters of the bulb being exposed. A piece of ribbon or string should be tied to the ring at the end of the thermometer and pinned to the infant's clothes with a safety pin. The thermometer without the teat can be used as an ordinary clinical thermometer.

101. **Scarlatina** or **Scarlet Fever** is infectious from the earliest emanation from the throat, and at all times during the peeling period, which is often a long one. **Scarlet Fever** Infection is very readily conveyed by the nurse, or by any article of clothing. Absolute isolation is particularly necessary under such circumstances, and all soiled articles of clothing should be soaked in a solution of **Lysol**, "**A. & H.**" (two tablespoonfuls to five pints of water) for three or four hours before removal from the sick-room. **Lysol**, "**A & H.,**" of this strength will have no harmful effect on linen, and is sufficient to kill all ordinary harmful germs. The patient should be well anointed with "**Eumollia**" to lessen the danger from flakes or particles of skin flying off ; and to disinfect the flakes themselves the "**Allenburys**" **Carbolic Soap** (strength 10%) should be employed for washing the body.
102. **Measles** and **German Measles**, distinct diseases in themselves, are very infectious, and similar precautions should be taken as in **Scarlatina**. There is grave danger of the occurrence of pneumonia during measles. Thousands of deaths occur annually from this complication. Hence, great care should be taken to *avoid chills*, and measles should never be regarded as a trivial complaint. For the respiratory complications which so often accompany or follow measles inhalations of Cresolene are invaluable (*see paragraph 92*).
103. In **Diphtheria** the breath of the patient is infective, as well as the saliva and all pieces of membrane which may separate from the throat, therefore, when the patient coughs or sneezes, this highly infective material is discharged into the air. The danger of spreading the infection to those in attendance may be minimised for them, by gargling the throat with "**Dioxogen**" (a powerful

yet harmless antiseptic, disinfectant and deodorant), and **Cresolene** should be vaporised in the room by the use of the "**Vapo-Cresolene**" lamp. By these means the disease is combated and the danger of infection is diminished. Paper handkerchiefs may be used, and afterwards burnt.

104. Whooping Cough is also very infectious, and may, like Diphtheria, be successfully combated as regards destruction of germs by disinfecting the air of the room during the progress of the disease.

**Whooping
Cough**

This also is best accomplished by using the "**Vapo-Cresolene**" lamp. The vapour of Cresolene is powerfully germicidal and antiseptic in action, but non-irritating to the throat and air passages (*see paragraph 92*). The saliva and exudations from the mouth and nose convey infection. Hence all linen so soiled should be soaked in **Lysol**, "**A. & H.**" solution (two tablespoonfuls to five pints of water) before being boiled. Paper handkerchiefs may be used, and afterwards burnt.

105. Typhoid Fever is in a different category from the above-mentioned diseases, because it is not infectious, but contagious. Here, practically only the stools, the urine, and dried particles of faecal matter convey the contagion. Hence it is necessary to disinfect the stools before removal

**Typhoid
Fever**

from the sick-room by the addition of a tablespoonful of undiluted **Lysol**, "**A. & H.**," and all soiled linen should at once be soaked in **Lysol**, "**A. & H.**" solution (two tablespoonfuls to five pints of water). Finally, the careful washing of the patient and of the nurse's own hands should be made with a solution of the same disinfectant, but the strength used should be two teaspoonfuls of **Lysol**, "**A. & H.**" to twelve ounces of water. If soiled linen be not so treated and immediately removed, dried particles of faecal matter are apt to be dispersed in

the air and inhaled by the nurse, and this is the reason why so many nurses formerly fell victims to the disease.

106. When the medical attendant has given orders for the disinfection of a room, all the windows, doors and fire-

Disinfection of the Sick-room place should be sealed up with paper and made airtight. The infected clothes, etc., not already soaked or boiled, should be spread out, and one or more sulphur candles, or a formalin lamp should be lighted in the room, which must be left closed for about ten hours, and finally aired well for another twelve. All washed clothes, blankets, etc., should be hung out to dry, and exposed to wind and sun for a day or two. After Scarlatina and Diphtheria, all papers on the walls should be stripped and the paint scraped after the fumigation, preparatory to redecorating. The sick-room for infectious cases should contain as little furniture as possible, and no books or book-cases. Cupboards should be cleared out and chests of drawers removed beforehand, if possible.

Under the Contagious Diseases Act it is forbidden by law to remove any notifiable infectious case in a public conveyance.

Care of the Mother.

I. Pregnancy.

107. During pregnancy the future well-being of the child and mother are at stake, therefore a degree of care must be exercised by the mother corresponding to her responsibilities.

All likely causes of excitement and mental or physical shock must be studiously avoided. There is no doubt that cheerfulness and a well-ordered life during this period exercise a beneficent influence on the child's health and character to a degree which it is impossible to appraise. As far as possible the mother must

Quiet Life

be relieved of all sources of worry and to this end her husband or family can usually contribute largely.

As much of her time as possible should be
Fresh Air spent in the open air, or in sunny and cheerful rooms with plenty of fresh air.

A moderate amount of exercise is beneficial, and should be continued even up to a few days before the birth of the child, but the strength should never be
Exercise overtaxed, and all likely causes of strain should be carefully avoided. Where mothers do their own housework, such exercise may be sufficient.

During the last few months the expectant mother
Rest should make a rule of lying down for at least one hour every afternoon.

The clothing should be loose, light and supported from the shoulders; corsets may be discarded in favour
Clothing of an abdominal belt, and when the breasts are much enlarged towards the end of pregnancy, the support given by a bust bodice will often be found a great comfort.

All food should be of a light and nourishing nature, and
Food should be taken at fairly frequent intervals, heavy meals and alcohol being avoided altogether. It must be remembered that there is now less room than usual in the abdomen for the stomach and other digestive organs. The "**Allenburys**" **Diet** will be found most useful all through pregnancy, but especially where the mother suffers from "morning sickness," which is usually of nervous origin. In the latter case if the Diet only is taken for breakfast and at 11 o'clock, the attacks of sickness may either be obviated altogether, or their severity considerably lessened. If, however, they persist, medical advice should be sought for other means of relief. A dose of "Allenburys" Magnesia taken before breakfast may help to ward off an attack.

Among other articles of diet suitable for this period may be mentioned the “Allenburys” Milk-Cocoa, Rusks, Breakfast Food and Beef Juice.

Keep the bowels regular; no strong aperients should be taken, but any tendency towards constipation should be counteracted by the judicious use of fresh fruit and vegetables in the diet (*see paragraph 85*). Failing this, an intestinal lubricant, such as “Byno Chrismol,” is useful, efficient and harmless. A simple and often effective preventative of constipation is a glass of water, hot or cold, taken last thing at night and five minutes before rising in the morning.

Daily Evacuation

During early pregnancy frequent and very hot baths should be avoided, especially by mothers who have had a previous miscarriage. But it is important that the pores of the skin should be kept well opened by daily washing of the body with soap and warm water, otherwise the skin is prevented from exercising the most useful function of getting rid of waste matters from the bodies of both mother and unborn child. Towards the end of pregnancy a hot Sitz bath, taken daily, often materially helps labour by softening the tissues. For this purpose a hip bath is used, and the mother when sitting in it is wrapped in a blanket, pinned round her neck, so that only her head is visible. The temperature of the water should be as hot as the patient can bear it, and should be maintained by the addition of further hot water.

Care of the Breasts The breasts should be carefully tended during the whole of this period (*see paragraph 109*).

Whenever such symptoms as persistent vomiting, frequent headaches, swelling of the legs or feet, or vaginal discharge or bleeding occur, *consult the doctor immediately*.

To avoid worry the mother should select her doctor and nurse or midwife in good time, and should have everything

for baby ready by the seventh month. The "Allenburys" Accouchement and Maternity Outfits provide all that is necessary and are therefore a great convenience. Particulars may be had on application, and both are obtainable through any good chemist.

II. The Nursing Mother.

108. It is most important for the mother to *lie up after childbirth*.

Wherever possible she should not leave her bed for a fortnight, or better still three weeks. The *Lying up* enlarged and often strained womb must be given time and rest to enable it to regain its normal size and position. If the importance of this was only realised more fully, much needless suffering and ill-health might be entirely avoided, and the birth of subsequent children rendered easier. Conditions of life often tend to make such advice difficult to carry out, but a serious effort to follow it should be made, and the reward of health and freedom from pain are worth considerable sacrifices. A few words on this subject with a thoughtful husband would in many cases make a great difference in solving domestic difficulties during the mother's enforced period of rest.

109. The mother should take the greatest care of the nipples and breasts. The former, if small, should, during pregnancy,

The Breast be gently pulled and drawn out, and for some time be carefully bathed and hardened with spirit, brandy or Eau de Cologne and water. To prevent any likelihood of thrush in the infant, during the period of lactation, after feeding the child, the nipple should be washed with Dioxogen diluted 1 to 10 parts of tepid water (*see paragraph 80*) and afterwards be carefully dried. If there is any tendency towards soreness, it is advisable to bathe with spirit and water (2 to 1). If there is any

tendency to crack, it should at once be checked, before serious fissures occur, by the use of "**Eumollia**" or some other emollient application. In feeding, the nipples should be so held, and the breasts pressed by the same hand, that an equable flow of milk may be obtained by the baby; too rapid a flow can be checked by slightly squeezing the nipple. Hardness and lumpiness of the breasts must be removed by careful rubbing. If this condition does not readily yield to treatment, advice should at once be sought with a view to preventing the formation of an abscess.

110. No mother can produce good milk unless she feeds herself wisely and well. Her food must be light and wholesome.

Food She must take a reasonable amount of exercise, and keep the bowels open, if possible, without the use of aperients, as these tend to upset the child and to decrease the flow of milk. Rickets and infantile scurvy may occur in breast-fed as well as in hand-fed children, so the mother's diet should include a liberal supply of fresh food containing vitamins (*see paragraphs 24 to 26, also 94 and 95*), because breast-fed children depend for an adequate supply of this fresh element on her milk, which in turn depends upon her diet. The popular belief that green vegetables are harmful to the child proves in most cases to be without foundation. Uncooked fresh food, such as lettuce, tomatoes and raspberries, is more valuable than cooked. All green vegetables should be *steamed and not boiled*, and then only for as short a time as possible (about 20 minutes). As regards meat—liver, kidneys and heart contain more vitamins than beef and mutton, and as regards fish—salmon and herrings are good. The mother must remember that, since she has now to feed her baby as well as herself, she must take some extra nourishment. But the common mistake of over-eating should be avoided, as this only results in indigestion. Various kinds of nourishing stouts are in vogue,

but it is not generally advisable that alcohol should be taken during lactation.

It is infinitely better that milk, cocoa, barley water and such like beverages should be taken. "Byno" Hæmoglobin

**"Byno"
Hæmoglobin** in tablespoonful doses three times a day after meals is invaluable at this period. The malt extract aids the digestion of starchy foods, and the soluble albuminoids contained in the product are of great nutritive value. The effect of the administration of "Byno" Hæmoglobin is most marked in promoting strength and vitality, with a consequent improvement in both the quality and quantity of the maternal milk. By its use, many mothers have been enabled to prolong considerably the period of suckling, without detriment to the health of the child.

Amongst the starchy articles of food that can with advantage be taken by the nursing mother, the "Allenburys"

**The
"Allenburys"
Diet** Diet stands first. Being a partially pre-digested milk and wheaten food it is readily assimilated, it is also palatable and easy to prepare, since it needs the addition of boiling water only. These three outstanding advantages will be appreciated by mother and nurse, especially during the early days of motherhood. The Diet, being rich in milk and fat-forming substances, is particularly useful where the strength of the mother is much impaired during or after her confinement, when nourishment is so necessary, but the power of assimilation so often weak. A cup of Diet taken just before going to bed checks any tendency to restlessness, and usually ensures refreshing sleep.

The natural vitamin content of the Diet, like that of the "Allenburys" series of Infants Foods, is also augmented by the addition of definite proportions of Vitamin D (*see paragraphs 24, 94 and 95*).

The **"Allenburys" Milk-Cocoa** is prepared from the "Allenburys" Diet and the purest cocoa. Being partially predigested during manufacture, like the Diet, it is easily assimilated by the nursing mother, who may have found some difficulty in digesting ordinary cocoas. It is quickly prepared and convenient in use since it only requires the addition of boiling water. This **Milk-Cocoa** is a palatable and stimulating beverage, especially suitable in early motherhood. It offers a valuable change in dietary at a time when it is often necessary to tempt a capricious appetite.

The "Allenburys" Breakfast Food A pleasant change of dietary, for those who like cereals, is afforded by the "Allenburys" Breakfast Food (*see paragraph 30*).

Milk Gruel Milk gruel is very generally given soon after confinement, and this can be made easily and quickly with the **"Allenburys" Barley Flour**. Barley flour is also very useful for the preparation of egg and barley water.

Of great nutritive value is the **"Allenburys" Beef Juice** (*see paragraph 50*). This should always be used in preference to beef tea, which is merely a stimulant and contains no nutrient elements.

"Bynotone" is a combination of bone marrow, liver fat, yeast nuclein, soluble milk protein, hæmoglobin, and malt extract. It is therefore an accessory food rich in the growth-promoting Vitamin A, in Vitamin B, which is associated with the proper nutrition of nerves and skin, and in Vitamin D, which prevents rickets

and assists in the formation of healthy bones and teeth. The natural Vitamin D content of the ingredients of "Bynotone" is also augmented by the addition of a proportion of synthetic Vitamin D, prepared by the process of ultra-violet light irradiation. "Bynotone" is, therefore, exceptionally rich in the anti-rachitic factor and its routine use is definitely protective against rickets and allied disorders. At certain periods in the life of every individual there is an increased demand for many of the vital food elements, a demand which is not fully met by the ordinary, everyday dietary. The ages of active growth and of adolescence, the period of expectant and nursing motherhood, and the state of convalescence after acute disease are examples. Being rich in the Vitamins A, B and D, and possessing highly nourishing, stimulating and blood-forming properties, "Bynotone" is the ideal accessory food at such times and renders the ordinary diet safe and adequate. It is also a general tonic and digestive which assists the assimilation of other foods and promotes general good health. For the prevention of colds, influenza and the common ailments contracted through run-down conditions, it is of the greatest benefit. The product is therefore a valuable addition to the dietary of the nursing mother, and is particularly helpful in all cases where weakness and debility follow childbirth.

Being in the form of crisp granules "Bynotone" is pleasant and convenient to take ; its palatable flavour makes a special appeal to children. "Bynotone" may be taken dissolved in such foods as the Diet or Milk Cocoa or in a little warm milk or water, or in sandwich form between bread and butter. It should not be added to the food until the latter has cooled off to 100° F. The usual dose is a teaspoonful three or four times a day, but in some cases the dose may be increased to a dessertspoonful.

111. Aperients must be used with discretion. Aloes, podophyllin and cascara, are all liable to upset the suckling child.

Aperients Fresh or stewed fruit often answers every purpose (see paragraph 85), but, failing this, saline aperients are the safest, such as the “**Allenburys**” **Effervescent Saline**. The “**Allenburys**” **Castor Oil** (tasteless) in moderate doses also affords a safe and efficient aperient. Too free purgation should be avoided, as thereby the flow of milk is lessened. In all things imitate and help nature.

112. “**Allenburys**” **Magnesia** is an effective laxative and pleasant to take. The dose of course varies with the individual; apart from its laxative effect one
Laxatives or two teaspoonfuls, taken alone or in a little water after brushing the teeth at night, will keep the mouth clean and the breath sweet.

“**I-so-gel**” is a new and convenient laxative, and is a product of certain mucilaginous tropical seeds in the form of fine, crisp, pink and almost tasteless granules. When taken about meal times “**I-so-gel**” mixes thoroughly with the contents of the alimentary canal, and, by swelling up, forms a mass which stimulates the peristaltic movements of the intestine. At the same time the mucilage has a protective effect on the intestinal mucous membrane. “**I-so-gel**” contains no added purgative drug and is therefore merely an emollient mechanical stimulant of the natural action of the bowels, and it is especially useful in the case of those suffering from hæmorrhoids.

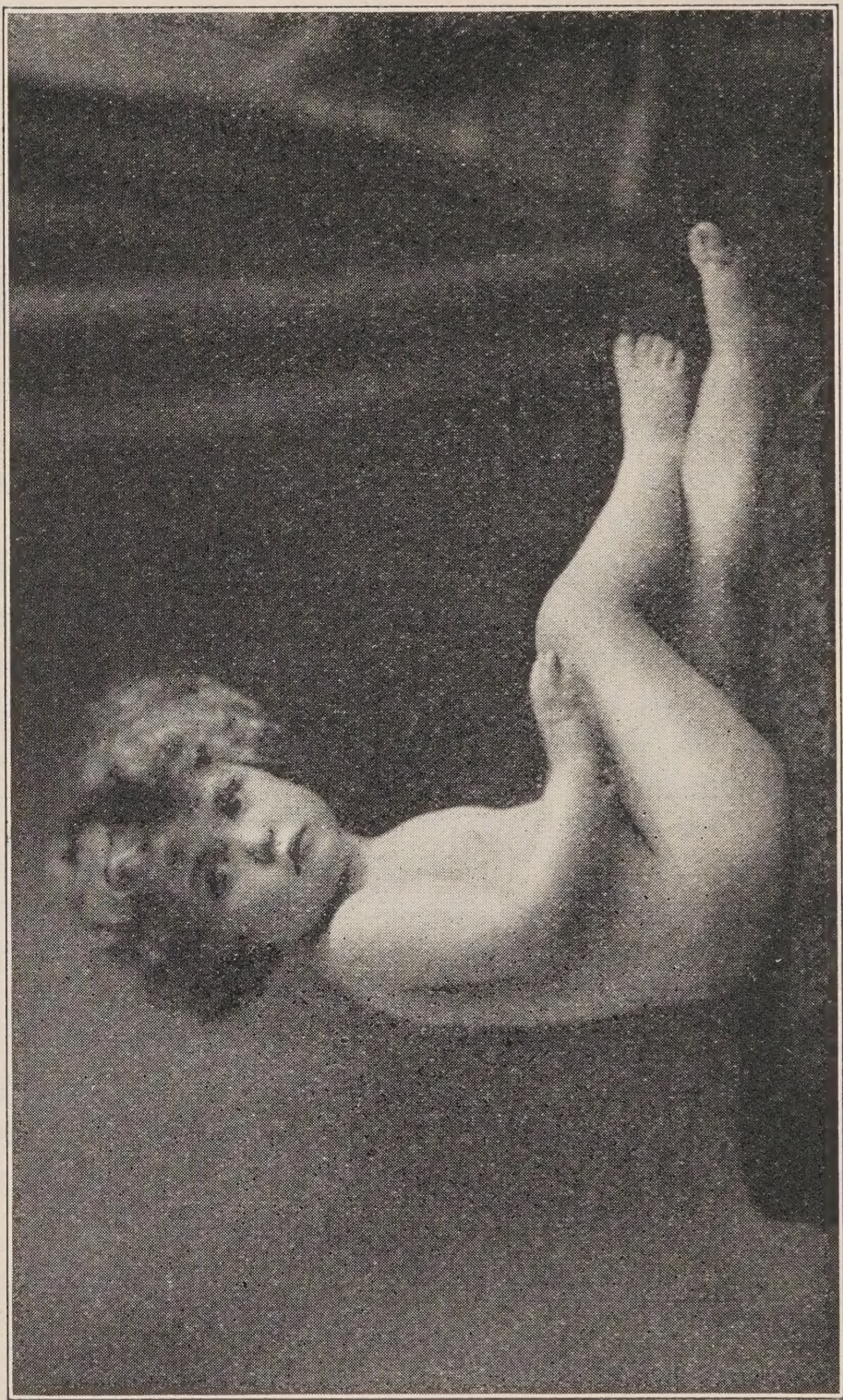
“**Chrismol**,” a purified liquid paraffin, is of great value to the nursing mother. “**Byno Chrismol**” contains 50% of

“**Chrismol**” in the finest malt extract, and
Intestinal is one of the most palatable and efficient
Lubrication intestinal lubricants ever introduced, in addition to the advantages it possesses in the marked

nutritive and digestive value of the malt extract (see paragraph 86).

113. **"Bynogen"** is a milk protein tonic food containing glycerophosphates, and a course of this product will be found beneficial to a nursing mother, particularly **Tonics** where the strain of childbirth has left her nervous or depressed. Its administration is also of great assistance in helping the mother to maintain her strength whilst suckling the child.

If towards the end of lactation, or at any other time, the mother becomes run down, the best general tonic and digestive she can take is **"Byno" Hypophosphites**. This is a preparation of the hypophosphites of lime, iron, etc., with "Bynin," Liquid Malt, and the alkaloids of cinchona and nux vomica. Experience has proved conclusively that **"Byno" Hypophosphites** is of great value not only to the digestive but to the nervous system, improving at the same time the efficiency of the circulation and the tone of the whole body.



Baby Yvonne. Age 2½ years.

Direct Testimony

From Doctors, Nurses and Parents to the value of the
"Allenburys" System of Infant Feeding.

*"Exhibits physical activity—
a feature of the 'Allenburys' baby."*

Dear Sirs,

The "Allenburys" Series of Infant Foods has been employed in connection with my own child since he was 8 weeks of age: previous to this a dried milk preparation was used, and while at first a gain in weight was recorded, this was uneven, and during the 7th and 8th weeks, as shown on enclosed weight chart, was absent; clinically the child's condition gave rise to considerable anxiety, by reason of vomiting and constipation, and life seemed for the babe one persistent colic.

The graph testifies to the steady gain on "Allenburys" but can give no idea of the relief from indigestion and pain experienced. At 8 months the boy is 21 lbs. in weight, has six teeth, is fat without being gross, and, what I value most, exhibits the physical activity which ensures the ultimate oxygenation of tissue cells—a feature of the "Allenburys" baby.

Yours faithfully,

. M.D., F.R.C.S.

*"A bonnier and healthier child
could not be wished for."*

Gentlemen,

I should like to express my high opinion of all of your products, and especially of your Baby Foods. My own son, now ten months old, has been reared on "Allenburys" Foods (1, 2 and 3) since birth, and a bonnier and healthier child could not be wished for. Your admirable Rusks now form part of his daily dietary.

The enclosed photograph, taken when he was 6 months, will show the progress he has made.

Yours faithfully,

. M.R.C.S., L.R.C.P.

"A boon to humanity."

Gentlemen,

I take this opportunity of writing to you with regard to your "Allenburys" Foods for Infants.

My boy, now 9 months old, was breast fed for three months, since then he has been fed exclusively on your excellent Food, and I could not wish for a better. He ails nothing, is good, fat, muscular, and contented, and when he sees a bottle of "Allenburys" there is a row till he gets it.

I have constantly ordered patients to get your Food for their infants, and it has always proved a success. I may say that last summer, when I had over three hundred cases of Summer Diarrhoea to deal with, I found No. 1 "Allenburys" very useful where one had to cut off all milk.

I can only conclude by saying your Food is in every way excellent, and a boon to humanity.

Yours faithfully,

. F.R.C.S.

*"All babies fed on 'Allenburys'
have turned out well."*

Dear Sirs,

Kindly send me 1 dozen 7/6 tins of "Allenburys" No. 2 Food, and let me have account for same, which I will remit per return of post.

You will be pleased to know that my first little boy was entirely fed on your food and is remarkably fit and well. All the other babies in whom I am interested and have been fed on "Allenburys" have all turned out well without any exception. There is a craze at the moment in this part for Grade A milk and Dextrin-Maltose, but personally I am not a great believer in this form of food as I consider the Grade A milk—especially in this hot weather—dangerous. I have therefore decided that my second child who has been breast fed for four months shall continue with your No. 2 Food.

Yours truly,

(Signed) . . . M.R.C.S., L.R.C.P.

"A very interesting case."

Dear Sirs,

I have recently had a very interesting case, where your Food has been used with remarkable benefit and I thought perhaps the case might interest you. I have been private nursing eleven years now, and always use and recommend "Allenburys" for infants when a food is needed.

This particular case was a baby girl born with Hare Lip and Cleft Palate. She was very small, weighing only five pounds at birth. Also she was very lifeless and frail, with very bad colour and difficult breathing. At first I fed her with 'drops' taken from the mother's breasts, but after the third day I gave her small feeds of "Allenburys" No. 1, using one of your premature bottles after making a large hole in the teat. She soon made such excellent progress that at 3 weeks old she was able to have the Palate and Mouth attended to. The Surgeon only intended doing the Palate but he said she was in such good condition and stood the operation so well that he did both. In a week she had quite recovered and when I left her at nine weeks old she was a bonny, happy, contented baby gaining six to eight ounces every week. She is now several months old, still taking "Allenburys" and still thriving and well.

Yours sincerely,

. . . . Registered Nurse, C.M.B.

"No equal."

Dear Sir,

I am in receipt of your samples of food for which I thank you. May I say that it is hardly necessary for me to have samples because I have known your foods for a number of years and think they have no equal for infants or invalids. As mine is one of London's leading Nursing Homes, I think you will appreciate that I am in a position to give an opinion.

Again thanking you,

Yours truly,

. . . . Matron.

"The first step on the road of health."

Dear Sir,

I am a firm believer in the name of Allen & Hanburys, knowing it to be the stamp of good quality. I never recommend any other Food before "Allenburys." I know of seven of what I call my babies in this neighbourhood that are fed only on "Allenburys" No. 1 and No. 2 Foods. All are healthy, happy children. Three were very delicate. I think I may truly say "Allenburys" Food gave them the first step on the road of Good Health, when their mothers were in the depths of despair of them.

Yours truly,

F. G. H.—Cert. Midwife.

"Always found 'Allenburys' good."

Dear Sirs,

I am sending you the photo of my small son aged 18 months. He has been brought up on your Food and I think does it credit. I am a Certified Nurse and was 44 when I had him (he is the only child) so am very proud of him. I had no trouble with him teething and he now has nearly all his teeth, which at his age is very good. I have in my Nursing career used many Foods but always found "Allenburys" good, and needless to say now I always recommend it. I know you must have many testimonials so please add mine to them.

Yours faithfully,

R.R.C.

"We are more than grateful."

Dear Sirs,

I have much pleasure in forwarding you a photograph of my daughter Betty, aged 5 months. I should like to point out that for the first two months of baby's life we could get no food to suit her (my having been unable to feed her myself) and we were feeling very unhappy and desperate. We were then advised by nurse to try your food, which we did.

After the first feed there was a wonderful change in baby, who seemed, and was, much happier than she had ever been before, and from that time she has got on wonderfully well. She is very fine now and a very happy child. During the 15th week she cut two lovely teeth with very little trouble, and she is now on your No. 3 Food, and is only having four feeds daily—7 a.m., 11 a.m., 3 p.m. and 7 p.m., and is gaining steadily each week. She has not had a 10 p.m. feed for 6 weeks, and does not wake during the night. Her weight was 7 lbs. at birth, and she is now 15 lbs. 10 ozs., and just cutting her third tooth.

We are more than grateful for having used your splendid food, and would not hesitate in any way in recommending it to anyone else.

You are quite at liberty in using this letter as you please.

Yours truly,

(Mrs.)

"Saved the life of her delicate baby."

Lady ——— has much pleasure in saying that she considers "Allenburys" Food No. 2 saved the life of her very delicate baby. Many other foods had been tried, but all failed. The baby is now getting stronger every month, and she ascribes it entirely to the food.

"After the first feed."

Dear Sirs,

Enclosed you will find a photograph of my baby aged 6 months. At the age of 10 weeks she was a living skeleton, crying night and day unceasingly, with the doctor in constant attendance. We tried many patent foods and then my mother brought home a tin of "Allenburys," and baby ceased crying after the first feed; her bowels immediately became regular, and she began a weekly gain of 5 ozs. a week. Now, at 6 months old, she is a picture, rosy cheeks, bright eyes and beautifully proportioned. I thought I would send you her picture as a proof. Perhaps you would be kind enough to return it to me when you have finished with it.

Thanking you,

Yours sincerely,
(Mrs.)

"Cannot praise your food too highly."

Dear Sirs,

Will you kindly send me "Allenburys" book on "Infant Feeding and Management."

I am feeding a premature baby on "Allenburys" Food—weighing only $3\frac{1}{2}$ lbs. at birth—now 3 months old and is now $8\frac{1}{2}$ lbs.—thanks to your wonderful food. My Nurse thinks she is splendid as she was not expected to live at first.

I felt I must write and tell you that I cannot praise your food too highly.

Yours gratefully,
(Mrs.)

"Thanks to 'Allenburys.'"

Dear Sirs,

My baby boy is now 7 months old and has taken your foods since he was 3 months. Up to that date everyone thought I should not rear him as I tried most foods on the market. My Doctor now congratulates me on having such a fine healthy child. I always add "Thanks to 'Allenburys.'"

Certainly the foods have brought him on in a most remarkable manner.

Mrs. J. W. C. B—.

"Always recommend your Food."

Dear Sirs,

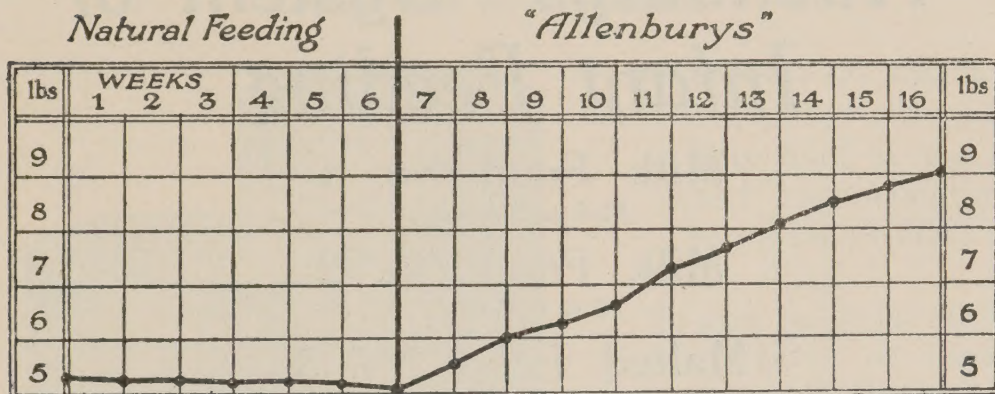
I am enclosing a photograph of my little girl who has had your foods since her 3rd month. My three other children have been similarly fed. Baby is now 13 months and weighs 25 lbs. $3\frac{1}{2}$ ounces. She has always been a happy and contented child and at 11 months took first prize at the Baby Show, where she was greatly admired. From our own experience we always recommend your foods and have succeeded in persuading several to use it with excellent results.

(Mrs.) W. G—.

*The originals are in the possession of Allen & Hanburys Ltd.,
but in accordance with professional custom the
names of the writers are not disclosed.*

Two Remarkable Results.

Showing the value of "Allenburys" where the child does not thrive on the breast.



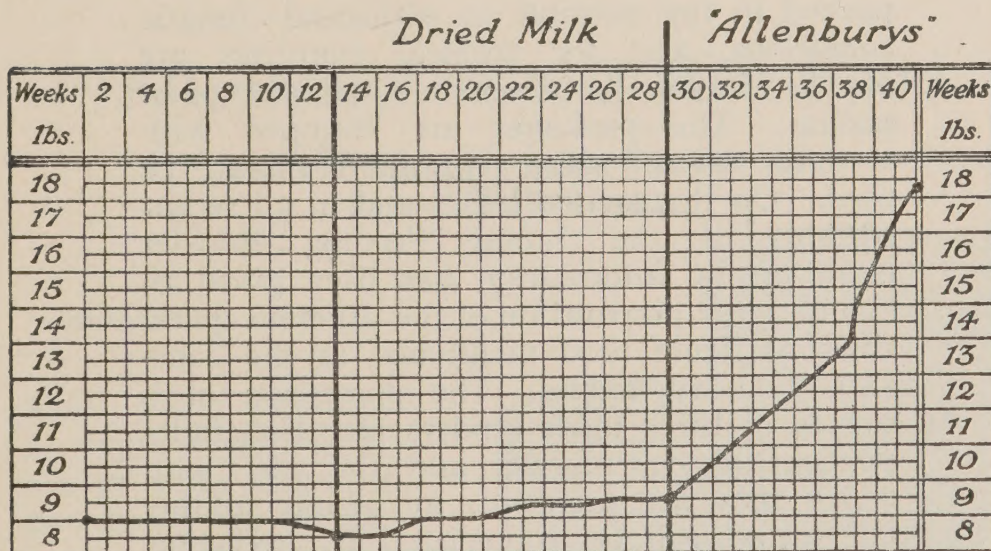
Dear Sir,

Nov. 1st, 1920.

You may be interested to have the Weight Chart of my baby. At 6 weeks it seemed likely that the infant might not survive as it presented a very typical appearance of malnutrition. It was put on the "Allenburys" No. 1 Milk Food, and at once began to gain in weight and improve in appearance. By the time it was 20 weeks old it weighed 11 lb. 4 ozs., was exceedingly contented and well, and was generally pronounced to be a very bonnie child indeed.

—M.R.C.S.

Showing the superiority of "Allenburys" over ordinary Dried Cow's Milk.



Rugby,

6/6/1920.

Gentlemen,

I feel bound to write and tell you what wonderful changes have taken place in my little boy since I started giving him "Allenburys." I enclose a copy of his weight chart and this speaks for itself. He was fed on a dried milk food, but at 28 weeks he was only 9½ lbs.; then I put him on "Allenburys," and a gain in weight was registered each week. In eleven weeks he increased by 6 lbs. 6 ozs., and at 10 months he scales 18 lbs. 6 ozs. In itself this is not remarkable, but considering that at six months, and prior to taking "Allenburys" he only weighed ½ lb. more than at birth, it is truly startling.

Yours faithfully, (Mrs.) H. B——.

The
“Allenburys” System of
Infant Feeding

Milk Food No. 1

Birth to 3 months.

Milk Food No. 2

3 to 6 months.

Malted Food No. 3

6 months and upwards.

Note. These Foods are obtainable of all chemists in the United Kingdom, and of most pharmacists throughout the world—a wide distribution being afforded by our subsidiary companies and branches in the overseas parts of the Empire and other countries. The Foods are packed in tins suitable to withstand climatic conditions, and for tropical countries are supplied in glass bottles with a special type of sealing. The packages are stamped with a date before which the food should be used. On the revised labels and in all recent editions of the Infant Feeding Booklet more precise information has been given to facilitate the preparation of the different quantities of liquid food mentioned in the Time and Quantity Tables. The possession of a supply of these foods renders travellers independent of cow's milk, and the ease with which they are prepared, by merely adding hot water, will be appreciated by everyone.

Should you experience difficulty in obtaining supplies of the “Allenburys” products locally please write, giving the name and address of your usual chemist to

*Allen & Hanburys Ltd.,
37 Lombard Street, London, E.C.3.*

"Allenburys" No. 1 Milk Food

From birth to three months.



Contains no starch.

—
This food is the closest approximation to mother's milk.

—
It may be given alone from birth or alternately with the breast throughout lactation. It is absolutely free from harmful germs and is easily and quickly made by the addition of hot water only.

"Allenburys" No. 2 Milk Food

From the beginning of the fourth to the end of the sixth month.

Contains no starch.

—
This food provides a slight stimulus to the growing digestive powers of the infant.

—
Like the No. 1 Food it is entirely free from pathogenic organisms and needs only the addition of hot water to prepare it for use.



“Allenburys” Malted Food No. 3

From the beginning of the seventh month upwards.



The Malted Food No. 3 is sold in four different sizes. Each tin is hermetically sealed. The value of this preparation has been fully described in the text of the book, and it is only necessary to emphasize the point that the Malted Food does *not* contain merely malt meal, but is a malted cereal food. Powdered malt meal is wholly unsuited to the delicate digestive organs of the infant owing to the presence of sharp-pointed shafts of malt which irritate the bowel.

“Allenburys” Malted Rusks

For Baby when Teething.

The “Allenburys” Rusks are carefully packed so that they retain their crispness and flavour as when freshly baked. Not only do they mechanically aid the cutting of the milk teeth but they provide the more solid nourishment needed when baby passes the milk diet stage of feeding. The age at which they may be given is very largely within the discretion of the mother but as an article of diet they are not usually included before the tenth month.



“Allenburys” Feeder

The advantages of the “Allenburys” Feeder are as follows:



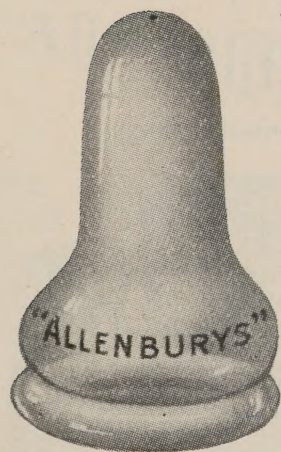
- (a) The bottle, being open at both ends, can be placed under the tap and scoured under full pressure in the most perfect manner (see paragraph 45).
- (b) There are no corners where deposit can accumulate.
- (c) It is not necessary to use a brush, and it is practically impossible for an infant to get “thrush” if this Feeder is properly used.

The curve of the bottle is purposely so arranged that the infant is most conveniently fed in a half-reclining position—the natural attitude for a child at the breast.

The feeder, complete with teat and valve, is supplied in a cardboard box and holds 8 fluid ounces. A half-size feeder with a capacity of 4 fluid ounces is also supplied (see paragraph 45).

“Allenburys” Teat

(Pat. No. 23108/04)



This teat is made of transparent rubber, with an inner collar or patent roll which securely grips the neck of the Feeder, effectually preventing its removal by the child, although it is readily detached by the mother or nurse for cleansing purposes.

The “Allenburys” Teats are supplied with perforations of two distinct types and with various numbers of holes to suit the requirements of any child, as will be seen by reference to paragraph 46.

“Allenburys” Valve

(Pat. No. 2023/10)

This valve is made of transparent rubber, with an inner collar or patent roll, and effectually regulates the flow of air behind the column of milk; hence the child is not troubled with wind-colic due to swallowing air.



“Allenburys” Diet

A Partially Predigested Milk and Wheaten Food.



The “Allenburys” Diet, which is entirely distinct from the “Allenburys” Foods for Infants, is made from pure rich full cream milk and whole wheat, both ingredients being partially predigested during manufacture. Extremely easy of digestion it is of value as the basis of feeding in both sickness and convalescence. It has the great merit of being made at a moment’s notice by the simple addition of

boiling water only, and thus has a very great advantage over those invalid foods in which the preliminary digestion has to be carried out in the home itself. After child-birth the “Allenburys” Diet is to be preferred to ordinary gruel in maintaining strength and helping to establish the flow of milk.

Extract from letter dated October 25th, 1923.

“Your Diet is a wonderful help in baby feeding. Once in his earlier months I was nearly distracted by his condition, from what cause I didn’t discover, and three days of the Diet just put him completely right.”

“Allenburys” Beef Juice

An excellent stimulant in Sickness and Convalescence.

The “Allenburys” Beef Juice contains the soluble albuminoids, digestive ferments and extractives of prime lean beef in a natural, unaltered and easily assimilable form. It has properties which distinguish it from the ordinary extracts of meat, and in both sickness and convalescence it gives the system a strong impetus towards recovery (see paragraph 50). It is especially serviceable in typhoid fever and in combating the wasting of phthisis and pneumonia. The “Allenburys” Beef Juice may be given with advantage to growing and weakly children, and it provides some of the fresh elements of diet which are so essential for the maintenance of vigorous growth.



“Allenburys” Milk-Cocoa

(PANCREATISED)

*For those who cannot take cocoa as
ordinarily prepared*



The “Allenburys” Milk-Cocoa is partially predigested during manufacture, and is therefore readily assimilated even by those who cannot digest ordinary cocoa. It has smoothness and flavour which distinguish it from other cocoas, and is appreciated by both children and adults. To invalids it affords a pleasant variation in dietary, and nursing mothers will find that it in-

creases the flow of milk. Children may take it from two years onwards. The Milk-Cocoa is economical and convenient in use, since the addition of boiling water only is necessary in preparing it.

“Allenburys” Milk-Food Chocolate

*A dainty, nourishing confection of
delicious flavour.*

The “Allenburys” Milk-Food Chocolate presents essential nutritive constituents in combination with a chocolate of the highest purity. A complete food in concentrated form, it is digested and assimilated with ease. For children it is an excellent food-sweet, greatly to be preferred to the ordinary starches and sugars which affect the growing teeth and derange the digestion.

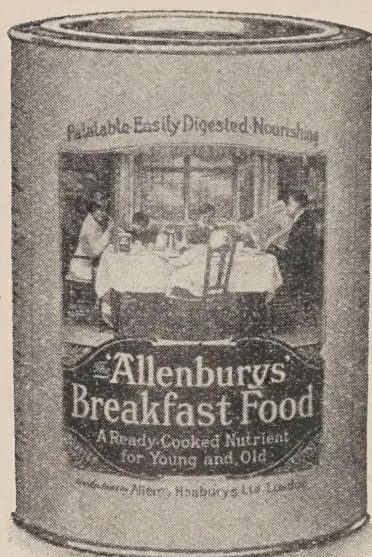
It is also of great value to athletes, travellers, and others requiring a nutritive and portable food.



“Allenburys” Breakfast Food

*A Ready-Cooked Nutrient for Young and Old.
Palatable, Easily Digested, Extremely Nourishing.*

The “Allenburys” Breakfast Food is composed of the protein of fresh milk with a due proportion of fat and a carefully cooked wheaten flour, to which are added the nutritive constituents of pure malt, in a soluble form, obtained from choice barley; the resultant food is of easy digestion and possesses highly nourishing properties.



The “Allenburys” Breakfast Food is a new departure in breakfast dietaries; its protein content enables it to take the place of meat for those who desire a light and easily digested breakfast. It furnishes an excellent alternative to porridge, especially during the spring and summer months when such forms of food are often found to “overheat the blood” and induce irritation of the skin. It is more satisfying and sustaining whilst being much less bulky. It has a pleasant taste

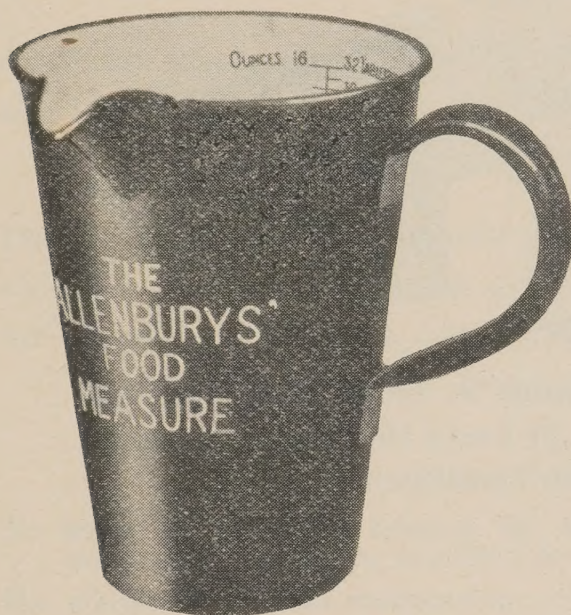
and is even tempting to those with a capricious appetite. By using the “Allenburys” Breakfast Food the inclination to take a heavy breakfast is lessened, thus tending to keep the brain clear and active.

The “Allenburys” Breakfast Food will also be appreciated when taken as a simple lunch or supper repast; being easy of assimilation it is particularly beneficial as a light nutritious food for general use. Children of the age of two years and upwards much relish this food, particularly for breakfast and supper.

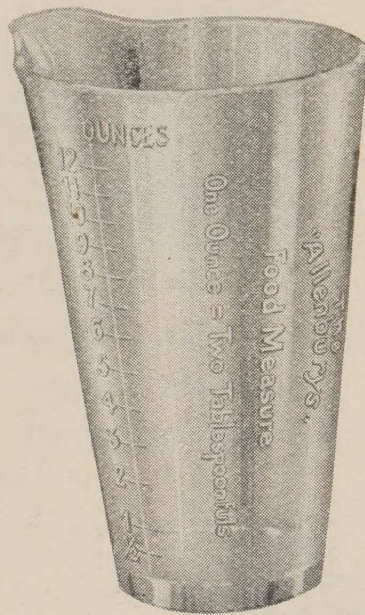
“Allenburys” Food Measure

For Measuring Prepared Liquid Food.

This is intended to facilitate the correct mixing of the “Allenburys” Milk and Malted Foods (*see paragraphs 35 to 38*).



ENAMELLED IRON

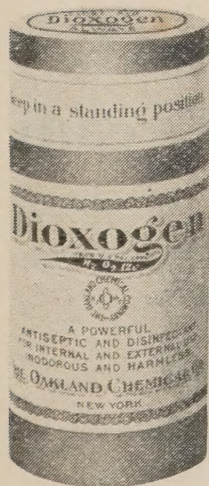


GLASS

The Liquid Food Measure is a convenient and inexpensive article. When it is used in conjunction with the Powder Gauge (illustrated in paragraph 35) the correct amount of liquid food can be easily and quickly determined. To minimise the risk of breakage the glass Food Measure should be rinsed with warm water before use.

“Dioxogen”

A Valuable Antiseptic, Disinfectant and Deodorant.



“Dioxogen” is a powerful antiseptic and disinfectant for internal and external use. It is invaluable in the lying-in room and for Nursing Mothers.

“Dioxogen” may be used in the proportion of 1 to 10 parts of water for applying to the nipples, as it is essential these should be washed after feeding. The child’s mouth may also be cleansed with a similar weak solution (1 to 10).

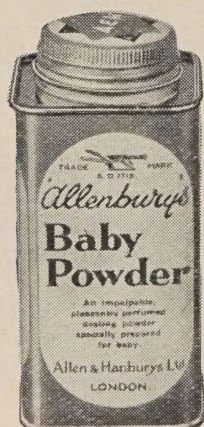
Thrush will thus be prevented.

As a mouth wash “Dioxogen” is invaluable for both the mother and the infant. It is inodorous and harmless and should be kept in every household. Full directions for use accompany each bottle.

“Allenburys” Baby Soap



“Allenburys” Baby Soap is pure, emollient, and delicately perfumed. It keeps the skin soft, supple, and healthy.



“Allenburys” Baby Powder

is perfectly free from deleterious ingredients and is an impalpable pleasantly perfumed dusting powder.

“Allenburys” Baby Cream



“Allenburys” Baby Cream removes the effects of chafing and soothes irritable and inflamed surfaces.

LYSOL, "A. & H."

Trade "Mycetol" Mark
Brand

A concentrated antiseptic and disinfectant suitable for general use. It is soluble in water in all proportions, and is perfectly safe when used as directed.

Besides being a powerful germicide, LYSOL, "A. & H.," has valuable detergent properties which render it doubly effective for cleansing the hands, skin, instruments and utensils, as well as for dressing wounds.

Directions for Use.

- To make an antiseptic solution for cleansing surface wounds.—A teaspoonful should be dissolved in a pint of water.
- For sterilising surgical instruments.—A tablespoonful in a quart of water.
- For sterilising the hands.—A teaspoonful in a pint of water.
- For a vaginal douche and in midwifery.—A dessertspoonful in a quart of water.
- For the disinfection of linen, clothing, etc.—Make a solution of three to four tablespoonfuls to a gallon of water, soak the articles in this for 24 hours, then if possible boil for an hour in this solution.
- For the disinfection of drains, urinals, bed pans, etc.—A tablespoonful in a pint of water.

Warning.

Lysol is poisonous and corrosive in its concentrated form. In the event of undiluted Lysol being spilt or splashed on the skin, the parts should be promptly and thoroughly washed with Methylated Spirit (or failing this with water) and then dressed with Olive or other Sweet Oil and covered with lint or cotton wool.

LYSOL, "A. & H.," "Mycetol" brand, is supplied in bottles containing 4 ozs., 8 ozs., and 16 ozs.; and in tins containing $\frac{1}{2}$ gallon and 1 gallon.

Manufactured by Allen & Hanburys Ltd., London

“Bynol” Malt and Cod-Liver Oil

*For Weakly Children and those who
“feel the cold” in Winter.*



“Bynol” is a unique preparation, and is especially useful in the case of children who dislike or do not readily tolerate plain Cod-Liver Oil. “Bynol” contains 30 per cent. of purest Norwegian Cod-Liver Oil in intimate association with the “Allenburys” Extract of Malt and is so palatable that it partakes of the nature of a sweetmeat rather than a medicine.

A doctor's experience on this point is interesting :
The Doctor's Jam.

Dear Sirs,

“I prescribed ‘Bynol’ for a patient convalescent after Pneumonia. The preparation not being finished was found by her little children, who promptly demolished the remaining ‘Bynol’ and called it ‘the doctor's jam.’”

Yours truly, M.D.

“Bynol” should be given in winter to growing children who are predisposed to chills, and who, to use a popular but quite definite phrase “feel the cold.” It is a valuable fat food which restores tone to the system and assists in maintaining body temperature. Adults may also take it with advantage in general conditions of debility and emaciation and especially when convalescing after influenza, pneumonia, etc.

Direct Medical Testimony :

In Incipient Phthisis.

Gentlemen,

“I have used the ‘Bynol’ you sent me some time since with great benefit and advantage in a case of incipient phthisis and shall continue its use.”

Yours truly,

. . . . M.R.C.P.(E.)

In Extreme Emaciation.

Dear Sirs,

“‘Bynol’ has proved efficacious in a case of extreme emaciation and malnutrition. It has not only increased the weight but given more appetite for other foods.”

Yours truly,

M.R.C.S., L.R.C.P.

In Whooping Cough.

Dear Sirs,

“My little girl has been having a sharp attack of whooping cough; I thought I would try her with ‘Bynol,’ and it has certainly done wonders for her.”

Yours faithfully,

. . . . M.B., B.S.

In Pulmonary Abscess.

Dear Sirs,

“‘Bynol’ was given to a patient with enteric fever complicated with pulmonary abscess. To-day his lung has healed and he has added much to his bodily weight.”

Yours faithfully,

M.B., C.M.

“Allenburys” Emulsion

Cod-Liver Oil and Hypophosphites.

This preparation is a combination of the “Allenburys” “Perfected” Cod-Liver Oil and the Hypophosphites of Lime and Soda. As has been indicated (*see paragraph 25*) the Emulsion affords a method of administering to the young child fresh elements of diet or vitamins which are so necessary for the maintenance of normal growth. It is also particularly efficacious at a later age for anæmic children in whom defective assimilation is retarding growth.

“Bynotone”

A Valuable Accessory Food.

“Bynotone” is a concentrated nutrient rich in the Vitamins A, B and D and other elements, which, though often deficient in the ordinary everyday dietary, are of vital importance to nutrition. It is the ideal accessory food during the ages of active growth and adolescence and the periods of expectant and nursing motherhood (*see also paragraph 110*).

Since “Bynotone” is in the form of a freely moving granular powder it is easily measured, and in this respect has advantages over the viscous malt and marrow preparations previously offered.

In the case of children of one year and upwards “Bynotone” may be given with benefit when there is a tendency to anæmia owing to illness, defective assimilation or too rapid growth. Here the nutrient may be taken either dissolved in warm milk or in sandwich form between bread and butter.

For infants it may be added to the contents of the bottle, in which it disintegrates readily at body temperature.

“Bynotone” embodies three of the accessory food factors or fresh elements of diet and is therefore included in the list given in paragraph 25.

“Byno” Phosphates An Improved Chemical Food for Children.

This preparation is an improvement on the well-known nursery tonic, Parrish's Chemical Food. In “Byno” Phosphates, our “Bynin,” pure active Liquid Extract of Malt, replaces the inert and often harmful syrup, which was originally used in order to make the tonic palatable to children. “Bynin” is not only far more agreeable, but is also of nutritive and digestive value. “Byno” Phosphates has therefore far more

claim to be considered a real food than the classic combination of Parrish. This latter is not so much a food as a tonic to the digestive and blood-forming organs.

“Byno” Phosphates contains in solution the phosphates of iron, lime, potash and soda, in combination with Malt Extract. It is especially serviceable as a general tonic and nutritive for growing and weakly children, and a valuable restorative in cases of debility. It promotes the digestion of other foods, especially milk and those of a starchy nature.



The Lancet writes:—

“The improvement in this preparation is evident. It consists simply of the replacement of the sugar in the ordinary preparations of chemical food by an active fluid malt. Whilst the phosphates of iron, lime, potash and soda are preserved unimpaired, the menstruum is not only itself nutritive but an aid to digestion. Preparations loaded with sugar are frequently inadmissible.”

The British Medical Journal writes:—

“‘Byno’ Phosphates is a solution of the phosphates of iron, lime, potash and soda, and the matters extracted from malt. The combination of the phosphates with the nutrient and diastasic power of malt extract is a very excellent one. The preparation has a sweet, pleasant taste and is readily taken by children.”

The Hospital writes:—

“The advantages of phosphates, when used as a tonic for delicate and growing children, are now too generally known to require notice. That special preparation of these salts, known as ‘Byno’ Phosphates which is under review, is one of the most elegant on the market; it is in fact, an improved form of the well-known Parrish’s Food, combined with ‘Bynin,’—a most satisfactory form of malt extract. In ‘Byno’ Phosphates are combined the valuable properties of iron phosphate, together with the nutritive and digestive power of malt.”

The British and Colonial Druggist writes:—

“‘Byno’ Phosphates is the well-known Chemical Food with the sugar replaced by the nutrient and digestive constituents of liquid malt. This cannot but be considered a great advance on the ordinary form as it presents the additional advantage of digestive aid.”

"Byno" Hæmoglobin *A blood-forming tonic and digestive.*



"Byno" Hæmoglobin contains iron in the natural organic combination in which it occurs in the blood, and is a very easily absorbed and assimilated iron compound. It has, moreover, the great advantage over other iron preparations in being non-constipating. "Byno" Hæmoglobin is extraordinarily effective in debility entailed by loss of blood, quickly bringing about a return to normal health. Rapidly growing, pale and weakly children also derive much benefit from its administration.

"Byno" Hypophosphites

"One of the most popular tonics of the day."—*British Medical Journal.*

A clear amber liquid, agreeable to take, with a slightly bitter taste, "Byno" Hypophosphites contains the active digestive "Bynin," Liquid Malt, instead of the inert sugar of ordinary Syrup of Hypophosphites. For the overwrought and jaded, for those requiring a stimulus to digestion and appetite, and before and after child-birth this tonic with its salts of iron, manganese, lime and potash, with the active principles of cinchona and nux vomica is invaluable. "Byno" Hypophosphites may be taken by a nursing mother without upsetting her child; and it also speedily restores health after nervous exhaustion.



“Chrismol”

A Pure Intestinal Lubricant.



“Chrismol” is a mineral oil of the highest purity specially selected for use as an intestinal lubricant. “Chrismol” is not a purgative : its administration, both in children and in adults, prevents the formation of hard accretions in the intestines and facilitates the excretion of waste matter from the system. In chronic constipation it may be taken as a matter of routine as its beneficial effect, unlike that of ordinary purgatives, is persistent. “Chrismol” may be obtained either plain or in the following flavours: Fruit, Lemon and Peppermint.

“Byno Chrismol”

An Intestinal Lubricant and Digestive.

In “Byno Chrismol” the “Allenburys” Extract of Malt is combined with the intestinal lubricant “Chrismol.” The preparation is an extremely palatable one and is readily taken by even the most fastidious palates to whom “Chrismol” itself is unacceptable. The combination is an extremely effective one for overcoming obstinate constipation. As with “Chrismol” there is no fear of the purgative habit being contracted nor is cessation of use followed by a return of the symptoms in an aggravated form.



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Baby's Record

Full Name.....

Date and time of birth.....

Place of birth.....

Parish.....

Weight at birth.....

Doctor's Name.....

Nurse's Name.....

Date of Registration of Birth.....

Name of Registrar.....

Address of Registrar.....

Baptised on the..... day of..... 19.....

at.....

by.....

Godparents.....

Baby's Record

Date of Vaccination.....

Date of cutting first tooth.....

First stood alone.....

Walked.....

First word.....

"Allenburys" Milk Food No. 1 first given.....

.....
"Allenburys" Milk Food No. 2 commenced.....

.....
"Allenburys" Malted Food No. 3 first given.....

.....
"Allenburys" Rusks first nibbled.....

